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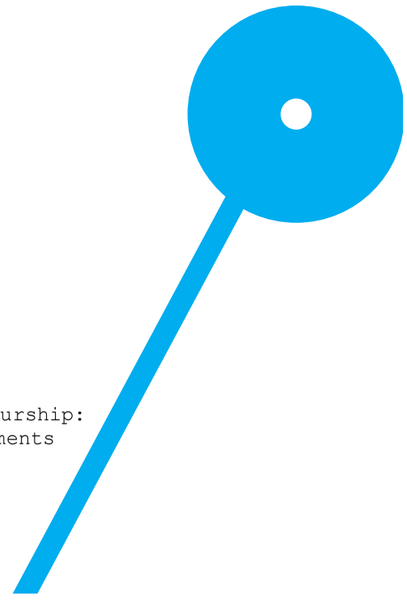
International Nascent Entrepreneurship:
The role of Individuals and Governments
Carlos Filipe Vaz Gomes



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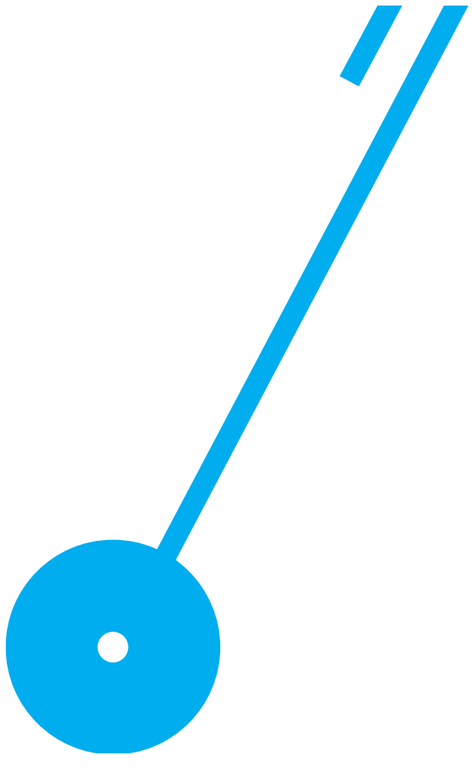

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International Nascent Entrepreneurship: The role of Individuals and Governments

Carlos Filipe Vaz Gomes
Supervised by:
Vítor Lélio da Silva Braga (PhD)
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Abstract

Entrepreneurship research has increased over the time, the role of this phenomenon in the economy is indisputable, being considered a motor for the growth of economy, wealth and recent studies even found that entrepreneurship as an important role on well-being too.

Despite the large number of studies about the stimulus and favorable environment created by the governments to increase the creation of new business, there are some gaps in the literature of this event. In this study is intended to fill some of this gaps, exploring the principal objective of this research, being to understand the priority given by the government in incentives for entrepreneurship as well to study the impact in the perceptions and characteristics of the individuals in the decision to become entrepreneurs.

In order to achieve the principal objective of this dissertation, as well of the secondary objectives, two studies were carried. In the first phase, using recent theory and data from the Global Entrepreneurship Monitor - National Expert Survey (GEM NES), which is at this time one of the main international research databases, are studied the factors found on the literature that helps to stimulate the creation of new business and which of them are more important. To achieve this aim, multivariate analysis techniques were used, in particular factor analysis and multiple linear regression models.

In the second article, in order to study the variables mentioned in literature that influence the decision to become entrepreneur and international entrepreneur, the database Global Entrepreneurship Monitor - Adult Population Survey (GEM APS) was used, with responses from 60 countries. To achieve the goal, were used nine logistic regression models.

Our results from the first study suggest that Government Policies, Financing, Taxes and R&D are all relevant and significant in evaluating the priority given by the government in the creation of firms but also on the growing firms. In more detail, the most important factor to the experts to evaluate the importance given by the government in the entrepreneurship is the Government Policies.

In the second research, the results show that all three demographic and economic variables, perceptual variables and national environment are significant when evaluating the decision to become entrepreneur and international entrepreneur, focusing on the fact that principal perceptual variables and country-effects variables help to explain better this decision.

Keywords: Entrepreneurship; Government support; Perceptions; GEM; National Environment.

Resumo

A investigação acerca da temática do empreendedorismo tem vindo a aumentar ao longo do tempo, o papel que este fenómeno representa na economia é indiscutível, sendo considerado um motor de crescimento da economia, riqueza e estudos recentes chegam a constatar que o empreendedorismo tem um papel importante também no bem-estar da população empreendedora.

Apesar do grande número de estudos sobre os estímulos e ambiente favorável criado pelos governos para aumentar a criação de novos negócios, existem algumas lacunas na literatura deste evento. Neste estudo pretende-se preencher algumas dessas lacunas, explorando o objetivo principal desta pesquisa, passando por compreender a prioridade dada pelo governo nos incentivos ao empreendedorismo bem como estudar o impacto nas perceções e características dos indivíduos na escolha para se tornarem empreendedores.

Para atingir o objetivo principal desta dissertação, assim como os objetivos secundários, foram realizados dois estudos. Num primeiro estudo, utilizando teoria recente e dados do Global Entrepreneurship Monitor - National Expert Survey (GEM NES), que é neste momento uma das principais bases de dados de investigações internacionais, foram estudados os fatores encontrados na literatura que estimulam a criação de negócio e qual deles é mais importante. Para atingir esse objetivo, foram utilizadas técnicas de análise multivariada, em particular a análise fatorial e a análise de regressão linear múltipla.

No segundo artigo, para estudar as variáveis apontadas na literatura que influenciam na decisão de se tornar empreendedor e empreendedor internacional, foi utilizada a base de dados Global Entrepreneurship Monitor - Adult Population Survey (GEM APS), com respostas de 60 países. Para atingir o propósito deste estudo, foram utilizados nove modelos de regressão logística.

Os resultados do primeiro estudo sugerem que Políticas Governamentais, Financiamento, Impostos e I&D são todos relevantes e significativos na avaliação da prioridade dada pelo governo na criação de negócios, mas também nas empresas em crescimento. Mais detalhadamente, o fator mais importante para os especialistas avaliarem a importância dada pelo governo no apoio ao empreendedorismo são a qualidade das políticas governamentais definidas para ajudar este fenómeno.

Na segunda pesquisa, os resultados mostram que todos os três tipos de variáveis, sendo elas demográficas e económicas, variáveis percetuais e ambiente macroeconómico nacional são significativas quando se avalia a decisão de se tornar empreendedor e empreendedor internacional, com foco no facto de que as variáveis que avaliam as perceções e variáveis que analisam o diferente ambiente de cada país ajudam a explicar melhor o modelo apresentado.

Palavras-chave: Empreendedorismo; Apoio Governamental; Perceções; GEM; Ambiente Macroeconómico Nacional.

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CHAPTER 1

Introduction

Problem Statement:

Entrepreneurship is seen nowadays as an engine of job creation and economic development. This phenomenon can offer a competitive advantage through risky decisions that pay off in the development of innovative products, services and markets in a difficult managerial environment and by moving proactively to dominate a competitive market (Jin & Lee (2020)).

There are several studies analyzing the impact of entrepreneurship on economic growth and evidencing why governments should invest in the creation of new businesses, some of them very recent like Prasetyo & Kistanti (2020) and Nurmalia & Muzayanah (2020). However, a few recent studies (Wiklund et al. (2019)) found evidence that entrepreneurship also has a positive impact on the well-being of the population, this topic is explored in this study theoretically. An important gap existing in the entrepreneurship research is the fact that even though there are several well-known types of stimulus for entrepreneurship, there is no recognition of which of them are more important to the possible future entrepreneurs. This research also fills this gap empirically, analyzing the opinion of the experts from several countries.

Another important aspect of studying the entrepreneurship is the fact that all individuals are different from one another and this conditions the way they react both to the stimulus and the environment (Entrialgo & Iglesias (2020)). There opportunities to better develop the understanding of which variables influence individuals to become entrepreneurs, this gap is filled in this research both theoretically and empirically, exploring variables that influence the decision to start a business and taking into account the importance of individuals' different perceptions and characteristics.

Objectives and Research Questions:

The general objective of this research is to understand the priority given by the government in incentives for entrepreneurship as well to study the impact in the perceptions and characteristics of individuals in the decision to become entrepreneurs.

In order to achieve this general objective, the following specific objectives were outlined:

(1) To explore the main governmental stimulus for entrepreneurship and to identify the determinant factors to define the priority given by the government on the support for new and growing firms;

(2) To study the main individual characteristics conducting to the decision to become both, nascent entrepreneur and international nascent entrepreneur.

Considering the problem addressed and the objectives of this research, the following research questions were defined:

(1) What governmental initiatives help new and growing firms and which of them is more important for the experts to determine the priority given by the government in helping the entrepreneurship?

(2) What type of variables influence the decision to become (international) nascent entrepreneur and which are the most significant and important?

Methodology

The general objective of this work can be divided in two main specific objectives, as presented before. Thus, in order to answer them, quantitative data was collected from two databases. As a result, two studies were conducted.

In the first empirical study “Government Support for new and growing firms: Gem Research” a literature review is presented in order to determine the factors influencing experts’ perceptions regarding the priority given by the governments to support entrepreneurship. After exploring the determinants found in the literature, a set of research hypotheses were formulated and tested using the experts’ perceptions in the GEM NES database about the government priority for supporting new and growing firms (dependent variable) and several variables of the GEM NES individual data (independent variables). With regards to the analysis of data in this research, two multivariate analysis techniques were used, in particular the factorial analysis and multiple linear regression models.

In the second empirical study "Perceptual Variables, Macroeconomic Environment and International Nascent Entrepreneurship" a literature review is presented to define which variables are important in the study of international nascent entrepreneurship. Such review resulted in a number of hypotheses, tested using GEM APS individual data. Regarding the analysis of results in this research, multiple logistic regression models were performed, testing the variables selected from the database in study.

In both studies, the year of the database used was the most recent available at the time of the study.

Structure

The dissertation is organized in four chapters, the first one incorporate the introduction, which provides an overview of the dissertation, the objectives of research, the research questions as well as the methods used throughout the dissertation and finally is summary presented their structure. The second and third chapters comprises the articles entitled “Government Support for new and growing firms: Gem Research” and "Perceptual Variables, Macroeconomic Environment and International Nascent Entrepreneurship". Finally, in the fourth part, the final considerations, conclusions, contributions, limitations and future investigations of this research are presented.

Government Support for new and growing firms: Gem Research

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Abstract

Purpose–Reasons/aims of paper: Entrepreneurship offers a competitive advantage through risky decisions that pays off in terms of development of innovative products, services and markets in a difficult managerial environment and by moving proactively to dominate a competitive market (Jin & Lee (2020)). This study aims to examine the relationship between entrepreneurship and government support. The research determines some main concepts about government priority associated with entrepreneurship, namely: Government Policies, Financing, R&D and Taxes.

Research–Methodology: The data was collected by Global Entrepreneurship Monitor project through the application of a questionnaire to National Experts in a cross-cultural context. A total of 2823 National Entrepreneurship Experts were selected to be included in the study. The data was analyzed using different multivariate techniques, in particularly, Factor Analysis and two Multiple Linear Regression models.

Findings–Conclusions: The data allowed to conclude that the perceptions of the entrepreneurs about the priority given by the government are affected first of all by the quality of government policies implemented, however Taxes, Financing and R&D are also statistically significant and relevant to the study.

Research limitations: The "GEM 2014 NES GLOBAL NATIONS INDIVIDUAL LEVEL" data contains information on the perception of the respondents, which does not allow to conclude on the effective priority of governments, but rather it informs how the general public understand public policy.

Practical implications-Applications to practice: – This paper suggests that the experts' perceptions on the importance given to entrepreneurship by governments is positively influenced by their perceptions on government policies. However, the perception about Taxes, Financing and R&D are also determinant variables.

Originality: This study is original because it evaluates public policy under the perception of experts and it also offers insights how governmental decision is seen from the perceived priority perspective. Most of the literature does not focus on policy priorities and it does not include the perception of experts.

Keywords: Perceptions; Public Policies; Taxes; R&D; Financing; Economic Growth; Well-Being

1. Introduction

Increasingly, the relationship between the concepts of entrepreneurship and economic growth has become more important. According to Wennekers & Thurik (1999), entrepreneurs aim to detect and create opportunities, deal with market uncertainty, introduce new products, decide on the allocation of resources and manage the entire business in a competitive situation.

With the growing attention to entrepreneurship as an engine of job creation and economic development, it is important for social scientists who are broadly interested in labor market and employment topics to focus attention on new firms and the policies and practices that surround them (Burton et al. (2019)).

Economic growth goes hand in hand with entrepreneurship and thus it is necessary that governments invest in this process to improve the growth and socio-economic development of the country. There are several studies on the well-known effect of entrepreneurship on economic and wealth growth of countries and the necessity of the governments to invest in this phenomenon, but there is a gap in the literature analyzing which of the stimulus and governmental assistance are considered the most important to individuals and potential entrepreneurs.

With the objective to fill the gap mentioned above, this study provides an analysis of the perceptions of the experts about the priority given by the governments for the support for new and growing firms.

Starting with the literature review, a set of definitions about entrepreneurship are presented, which culminates in a set of perceptions about the influence of this process on economic growth. The correlation between entrepreneurship and well-being is also presented in this section, this correlation is considered in some recent studies like Williams & Shepherd (2016) and Shir et al. (2019)). Still in the same dimension, a study of the factors that influence the perception as mentioned above, on the priority given by the governments for the support for new and growing firms is made.

Moving on to a second phase, with the objective to firstly identify factors to support entrepreneurship and then to study their influence on the perception of the specialists regarding the priority with which governments help new and growing firms , a statistical study with the help of the software SPSS, using multivariate analyzes is performed. In this case, a factorial analysis and two multiple linear regression models are applied, considering a database related to the GEM project (Global Entrepreneurship Monitor) that helps to study the environment that involves entrepreneurship.

Finally, conclusions and contributions of our work are presented, and future research directions are suggested.

2. Literature Review

2.1 Entrepreneurship

Although entrepreneurship is a widely discussed phenomenon nowadays, it is a subject that started to be studied hundreds of years ago. Cantillon (1755) defines the entrepreneur as someone who assumes a certain business risk, directing the energies for future profits and gains, as the result of a visionary attitude. Drucker (1985) when studying the frontiers of entrepreneurship, conceives that entrepreneurship begins with a certain action and this action is the creation of a new firm.

According to Praag (1999), Say was the first economist to investigate the role of the entrepreneur and to introduce him to the management of firms. The French economist attributes to the entrepreneur the role of guiding the productive process and distinguishes the business function from the capitalist function of the owner, rejecting the classical theory of the capitalist (Say (1803)).

Gartner & Carter (2003) presents the study on the relationship of four dimensions in the creation of new business: individual - personality traits and sociodemographic characteristics; the organization - the

construction of an organizational structure; the environment - environmental factors such as culture or institutional framework and processes - resource accumulation, customer portfolio and the development of competitive advantages (Ikhsan et al. (2020)).

Shane & Venkataraman (2000) focus on the concept of entrepreneurship in the existence of opportunities and in the process of discovering and seizing profitable opportunities (Dobson & McLuskie (2020)). On the other hand, studies have also acknowledged a lack of entrepreneurial intention with subjects exhibiting influences from other factors such as serendipity (Varamaki et al. (2016); Ikhsan et al. (2020)).

2.2 Entrepreneurship in Economic Growth

There has been a significant increase in academic research on entrepreneurship, due to the recognition of the importance of the phenomenon in the development of economies. This importance is recognized not only by researchers but also by the political power. Several governments seem to highlight the strategic importance of entrepreneurship for the economic and social development of their countries (Silva & Teixeira (2011)). Acs (2006) also mentioned that is explicitly recognized that the exploration of entrepreneurship contributes considerably to economic growth and development of the country.

Wennekers and Thurik (1999) carried out an investigation into the relationship between the dimensions of entrepreneurship and economic growth at three levels: individual, business, and macroeconomic. They concluded that entrepreneurship is the manifest ability and willingness of individuals to perceive and create new economic opportunities like new products and new production methods and to introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions.

The economic crisis leads to the need of governmental support to encourage entrepreneurship, since the creation of new businesses creates jobs and fosters the economic development (Ferreira et al. (2010)). In addiction, political support for entrepreneurship aims at increasing the level of entrepreneurship and sets the role of government and regulatory institutions in creating a favorable environment conducive to entrepreneurs (Audretsch et al. (2017)).

There is no question of the substantial social, cultural and economic benefits of entrepreneurship, a fact that has prompted governments around the world to take an increasingly active role in promoting what appears to be nowadays a necessary phenomenon. Encouraging the entrepreneurial spirit often depends on the political measures put in place (Souitaris & Zerbinati (2005); Michael & Pearce (2009); (Ratinho et al. (2020)).

2.3 Entrepreneurial Well-Being

Psychological well-being is an essencial part of living a fulfilling and prosperous life and it is intimately connected to people capacity to work and maintain positive relationships. Well-being plays a significant role in scholarly conversations and public policy debates. Multiple studies identify that entrepreneurship can be a source of personal fulfillment and satisfaction that can energize entrepreneurs to persist in improbable tasks that can become a force for a positive change in the societ (Wiklund et al. (2019)), being another reason for the governments to priority the support of entrepreneurship.

Frequently, the studies that investigative the relationship between entrepreneurship and well-being adopt one of two approaches. Either relying on general measures of well-being, such as life satisfaction or focusing on context-specific constructs of business- and work-related satisfaction (Benz & Frey (2008); Block & Koellinger (2009); Uy et al. (2017); Wiklund et al. (2019)).

Results from recent studies indicate that entrepreneurship is associated with substantial benefits in terms of psychological functioning, both personal and social, which almost entirely mediate the relationship between entrepreneurship and subjective well-being (Nikolaev et al. (2020)). Entrepreneurship is also a process phenomenon in which needs, goals and aspirations are disctinctly integrated with the very

process they create. Thus, entrepreneurship may be particulary positioned to facilitate the fulfillment of people basic psychological needs, which, in turn, can increase psychological well-being (Shepherd & Patzelt (2017); Williams & Shepherd (2016); Shir et al. (2019)).

2.4 Government Support to entrepreneurship

There are some factors that help stimulating a more entrepreneurial society. The first is defined by supporting the development and growth of enterprises (through **Government policies**). To reduce the time and cost of setting up a business, governments should reduce bureaucracy (for example **Taxes**) in order to eliminate the various obstacles to business activity. Priority should be given to attempts to make access to finance (**Financing**) and skilled labor easier. Support for acquiring knowledge and skills to create and adapt business ideas to reality is essential for entrepreneurs. Therefore, the exchange of experiences and cooperation in clusters or networks can support them in finding inspiration, advice, access to technology and knowledge (**R & D**) (Duarte & Esperança (2014)).

One of the categories when talking about public policies to support entrepreneurship is the reduction of barriers to new firms' entry (**Taxes**) and the elimination of obstacles to entrepreneurship, summarized by the reduction of time and cost to start a business. Another category consists in measures to support new firms, such as access to information, consultancy, and other forms of know-how transfer (**R & D**). The next factor deals with the provision of capital to support entrepreneurship (**Financing**) and is oriented towards the provision of financing for new firms. The last type is a set of policies focused on specific segments that aim to promote entrepreneurship (**Government policies**) (Stevenson & Lundström (2007)).

Recent studies also approach the conection between financial support from the government and entrepreneurship. Policy finance includes loans, credit guarantees, investments and insurance (**Financing**) (Jin & Lee (2020)). They also evidence that public policies are very important to encourage entreprenurship and innovation (**Government policies**).

Ngwaba & Azizi (2019) indicate that the tax reform had a significant and positive effect on the probability of becoming self-employed (**Taxes**). Some authors mention that several attempts have been implemented by different public institutions in order to ease firms' access to financial resources. They mention examples like direct R&D subsidies (**R & D)**, internationalization activities, intellectual property rights protection,taxation and fiscal incentives for investors, stimulation of capital markets through equity and venture capital programmes, microfinance and loan guarantee schemes **(Taxes and Financing)** (Minniti (2008); Giraudo et al. (2019)).

Evidence suggests that public policies that seek to warrant quality entrepreneurship indirectly can generate jobs, promote national and international competitiveness, economic development and growth (**Governement Policies**) (Mason & Brown (2013)). At the same time, government interventions can play an active role increase the effectiveness of R&D transfer, creating not only an extension in the type of entrepreneurial opportunities, but also in how entrepreneurs will pursue it (**R&D**) (Amorós et al. (2019)).

It is then recognized in the literature that the four factors mentioned: Government Policies; Financing; Taxes and R&D, help measuring whether governments display priority in helping new and growing firms.

It is now possible to formulate the following hypotheses:

- H1: Government Policies influence the experts' perceptions on the governmental priority for new and growing firms.

- H2: Financing influences the experts' perceptions on governmental priority for new and growing firms.

- H3: Taxes influence the experts' perceptions on governmental priority for new and growing firms.

- H4: R&D influence the experts' perceptions of the governmental priority for new and growing firms.

In the Table 1 a summary of the Research Hypotheses and Theoretical Support is presented.

Hypotheses formulated	Theoretical Support
H1: Government Policies influence the experts' perceptions on the government priority supporting new and growing firms.	Duarte & Esperança (2014); Stevenson & Lundström (2007); Mason & Brown (2013); Jin & Lee (2020).
H2: Financing influences the experts' perceptions on the government priority supporting new and growing firms.	Duarte & Esperança (2014); Stevenson & Lundström (2007); Minniti (2008); Giraudo et al. (2019); Jin & Lee (2020) .
H3: Taxes influence the experts' perceptions on the government priority supporting new and growing firms.	Duarte & Esperança (2014); Stevenson & Lundström (2007); Minniti (2008); Giraudo et al. (2019); Ngwaba & Azizi (2019).
H4: R&D influence the experts' perceptions on the government priority supporting new and growing firms.	Duarte & Esperança (2014); Stevenson & Lundström (2007); Giraudo et al. (2019); Minniti (2008); Amorós et al. (2019).

Table 1 – Research Hypotheses and their Theoretical Support

3. Methodology

3.1 Population, sample and data collection

In this study, multivariate statistical analysis was applied, with the help of the software SPSS, to the database of the Global Entrepreneurship Monitor project "GEM 2014 NES GLOBAL NATIONS INDIVIDUAL LEVEL".

Annually, after data collection, GEM publishes about 20 of its APS (Adult Population Survey) indicators and 13 of its NES (National Expert Survey) indicators for all participating economies through its Global Report and its website. The objective of the GEM project is to use empirical data to assess the level of entrepreneurial activity in countries to understand how business activity varies over time and to understand why some countries are more entrepreneurial than others. In addition, GEM researchers seek to explore the relationship between entrepreneurial activity and economic growth, as well as identifying policies that drive entrepreneurship. In the practical part of this report is used the National Expert Survey (NES), which studies the environment to create business in the country, carried out with experts of different areas.

Through this practical part, with the objective to identify factors for entrepreneurship support and to study their influence in relation to the perception of the specialists regarding the priority with which governments help new and growing firms, was released a descriptive analysis and two multivariate techniques: Factor Analysis and two Multiple Linear Regression models, the first using all the variables and the second with Factor Analysis loadings.

Considering this database, 14 variables were selected, that can be included in the four factors mentioned in the literature.

Variables	Factor	Description	Hypotheses	Expected Sign
NES14_A01	Financing	In my country, there is sufficient equity funding available for new and growing firms.	**H2**: Financing influences the experts' perceptions on the government priority supporting new and growing firms.	+
NES14_A02	Financing	In my country, there is sufficient debt funding available for new and growing firms.		
NES14_A03	Financing	In my country, there are sufficient government subsidies available for new and growing firms.		
NES14_B01	Government policies	In my country, Government policies (e g, public procurement) consistently favor new firms.	**H1**: Government Policies influence the experts' perceptions on the government priority supporting new and growing firms.	+
NES14_B03	Government policies	In my country, the support for new and growing firms is a high priority for policy at the local government level.		
NES14_C03	Government policies	In my country, there are an adequate number of government programs for new and growing businesses.		
NES14_B05	Taxes	In my country, the amount of taxes is NOT a burden for new and growing firms.	**H3**: Taxes influence the experts' perceptions on the government priority supporting new and growing firms.	+
NES14_B06	Taxes	In my country, taxes and other government regulations are applied to new and growing firms in a predictable and consistent way.		
NES14_B07	Taxes	In my country, coping with government bureaucracy, regulations, and licensing requirements it is not unduly difficult for new and growing firms.		
NES14_E01	R & D	In my country, new technology, science, and other knowledge are efficiently transferred from universities and public research centers to new and growing firms.	**H4**: R&D influence the experts' perceptions on the government priority supporting new and growing firms.	+
NES14_E02	R & D	In my country, new and growing firms have just as much access to new research and technology as large, established firms.		
NES14_E03	R & D	In my country, new and growing firms can afford the latest technology.		

Table 2 - Description of the Variables and their corresponding factor

3.2 Perceptions about conditions for new and growing firms

Having in mind the main objective of this study, which is to identify factors that influence the perception of the experts' on the priority given by the governments for the creation of new business, the variable considered as dependent variable is NES14_B02 "In my country, the support for new and growing firms is a high priority for policy at the national government level".

Regarding the type of variables chosen for study, with the sample of 2823 experts answering the survey, they are categorized as ordinal qualitative variables, which are given on a scale ranging from 1 to 5: 1. "Completely false"; 2. "Somewhat false"; 3. "Neither true nor false"; 4. "Somewhat true"; 5. "Completely true".

Analyzing the data from the GEM database at individual level, it is observed that for this variable NES14_B02, there was a total of 2776 valid answers and 47 missing (Attach number 1).

The "somewhat false" response received a total of 809 responses, corresponding to 28.7% of the population. The answer "somewhat true" was given 794 times (28.1%), 552 answered "Neither true nor false" (19.6%), "completely false" received 408 results (14.5%) and "completely true" 213, corresponding to 7.5% of the population. This type of perceptions can be affected by the different countries and level of development, for example in South Africa, being a developing country the response "completely false" has 57,9% of the responses while in the United Kingdom, a developed country, the response "completely false" represents only 19% of the total responses.

Based on Marôco (2010) and Howell (2012), in ordinal variables, the best trend measures are the median and the mode.

Talking about the mode, it represents the most frequent value of a set of data, so, to define it, it is enough to observe the frequency with which the values appear. The most widely used number was 2, that is, it is "somewhat false" that there is a high priority for national governments to help new and growing businesses.

The Median shows the central value of a data set. To find the median value it is necessary to place the values in ascending or descending order. In the concrete case the central value was 3, meaning that 50% of the experts surveyed answer "Neither true nor false" or less about their perception about if in their country, the support for new and growing firms is a high priority for policy at the national government level, and the other 50% experts answered more than that.

For the dispersion measures, we have the standard deviation and the variance, where the larger the variance, the more distant from the mean are the values, so the lower the variance, the closer the values will be on average. Its value is 1,452, meaning that in average the deviation of the answers relatively to the mean is around 1,5.

About the normality, since the sample is large, a normal distribution is assumed having in mind the Central Limit Theorem (CLT).

4. Results and Discussion

4.1 Factors that support entrepreneurship

In this section, with the purpose of reducing and grouping the variables from Table 2, in order to organize them into a set of factors that support the creation of businesses, a factorial analysis with varimax rotation was conducted. It also aims to compare our data with the factors identified in literature.

By analyzing the correlation matrix, it is possible to observe that 100% of the correlations are significant for a 5% significance (sig=0,00).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,811
Bartlett's Test of Sphericity	**Approx. Chi-Square**	6617,37
	df	66
	Sig.	0,000

Table 3 - KMO and Bartlett's Tests

Variable	Extraction	Variable	Extraction
NES14_A01	0,717	NES14_B05	0,699
NES14_A02	0,703	NES14_B06	0,669
NES14_A03	0,567	NES14_B07	0,612
NES14_B01	**0,509**	NES14_E01	0,595
NES14_B03	0,626	NES14_E02	**0,755**
NES14_C03	0,582	NES14_E03	0,637

Table 4 - Communalities

Analyzing the Table 3, the KMO value is 0.811, so the suitability of the sample for factor analysis is good, with a value near excellent, according to Marôco (2010).

Observing the Table of communalities (Table 4), it reveals that the variable NES14_E02: " In my country, new and growing firms have just as much access to new research and technology as large, established firms." is the variable that has more in common with the others (0,755 variance explained by common factors). At the other extreme, the variable NES14_B01: " In my country, Government policies (e g, public procurement) consistently favor new firms." show a communality value of 0,509.

All Measures Sample Adequacy (MSA) values present on the diagonal of the Anti-Image matrix are above 0,5, so all variables are considered important for the study and there is no need to remove any.

	Component (Factors)				**MSA**
	1 (Financing)	**2 (Government Policies)**	**3 (Taxes)**	**4 (R&D)**	
NES14_A01	0,819				0,788
NES14_A02	0,825				0,782
NES14_A03	0,561				0,837
NES14_B01		0,689			0,877
NES14_B03		0,768			0,860
NES14_C03		0,688			0,838
NES14_B05			0,823		0,777
NES14_B06			0,787		0,805
NES14_B07			0,738		0,839
NES14_E01				0,709	0,820
NES14_E02				0,857	0,720
NES14_E03				0,739	0,793
% of Variance	8,691	12,332	31,768	11,124	63,195 (Total)
Cronbach's Alpha	0,706	0,665	0,740	0,715	

Table 5 - Rotated Component Matrix

Through the analysis of Table 5, it is possible to group the variables into factors. The variables are divided into the following groups, which match with what was studied in the theoretical part:

- Government Policies (Government Programs)
- Financing (Financial Resources)
- Taxes (Bureaucracies and Taxes)
- R&D (Technology and knowledge)

These four factors explain 63,195% of the total variance of the initial variables, as it can be seen in Table 5, and the factor that contributes the most to this value is “Taxes” with 31.768%.

By analyzing the reliability of the groups using the Cronbach's Alpha value, the factors Financing; Taxes and R&D have a reasonable classification (0,7-0,8) and the "Government Policies" factor has a "weak" reliability alpha value (0,6-0,7) (Pestana & Gageiro (2008)).

4.2 Support to new and growing firms: Expert Perceptions

In this section, aiming to observe which variables influence the opinion of the 2823 respondents, on the priority of governments towards the support to new and growing firms, were employed two multiple linear regression models.

The first one aims to identify the variables most relevant for the study, the second model aims to use the factors defined in the previous section as independent variables to see which one is most important for the model, to explain experts' perceptions about priority for policy to support new and growing firms.

Then, the multiple linear regression model is suitable for the objective, since is a multivariate technique used to establish relationships between variables and to prognosticate the value of a dependent variable from a set of independent variables (Uyanık & Güler (2013)).

Stepwise method was used, which automatically select the variables that should be removed. Only 6 of the 12 variables were included: NES14_A03; NES14_B01; NES14_B03; NES14_B06; NES14_C03; NES14_E02 (see table 2 for complete description).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,727	0,528	0,527	0,823	1,766

Table 6 - Model Summary (Stepwise method)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1662,983	6	277,164	409,242	0,000
	Residual	1485,912	2194	0,677		
	Total	3148,895	2200			

Table 7 - Anova

First, it is important to analyze Table 6, where it is noticed that the adjusted R^2 is 0,527, i.e., the six independent variables explain 52,7% of the variance of the dependent variable.

The Anova test allows to see if the adjusted model is significant. Table 7 allowed to test the following hypotheses:

H0: Independent variables have no significant effect on the dependent variable.

H1: There is at least one of the variables that has a significant effect on the dependent variable.

Analyzing Table 7, the p-value of the test is approximately 0,000, value lower than the 5% significance level, leading to the rejection of the null hypothesis, i.e., at least one of the variables in the model has a significant effect on the dependent variable.

Model 1		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
	(Constant)	,311	,064		4,823	0,000		
	NES14_A03	0,068	0,018	0,067	3,869	0,000	0,716	1,396
	NES14_B01	0,238	0,018	**0,218**	13,214	0,000	0,792	1,263
	NES14_B03	0,474	0,018	**0,461**	26,584	0,000	0,640	1,563
	NES14_C03	0,168	0,019	**0,160**	8,715	0,000	0,864	1,157
	NES14_B06	0,090	0,015	0,095	6,022	0,000	0,919	1,088
	NES14_E02	-0,077	0,017	-0,069	-4,512	0,000	0,726	1,378

Table 8 - Most significant variables

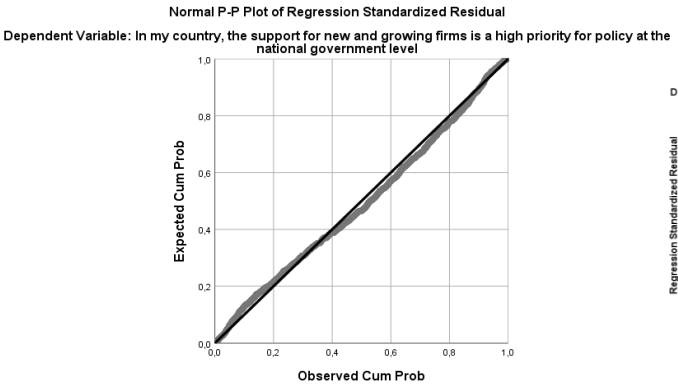
Examining the last two columns of Table 8 (Collinearity Statistics), it is verified that there are no multicollinearity problems, since T is not close to zero and VIF is not higher than five.

Analyzing the Table 8, it is possible to define that the variables that better explains the dependent variable are NES14_B01; NES14_B03; NES14_C03 which are: “In my country, Government policies (e g , public procurement) consistently favor new firms”; “ In my country, the support for new and growing firms is a high priority for policy at the local government level” and “In my country, there are an adequate number of government programs for new and growing businesses”.

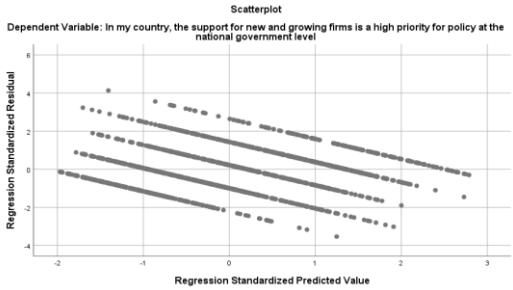
The three variables belong to the same factor (Government policies) and are the ones that most influence / explain the dependent variable NES14_B02: “In my country, the support for new and growing firms is a high priority for policy at the national government level”.

In contrast, the variable NES14_E02- " In my country, new and growing firms have just as much access to new research and technology as large, established firms " negatively influences the experts' perceptions about the priority that governments have to support for new and growing businesses.

Concerning with residuals analysis, the Durbin-Watson value (Table 6), has a value of 1,766, very close to 1,8, limit value to consider that the residuals are not correlated, although this needs to be further explored.

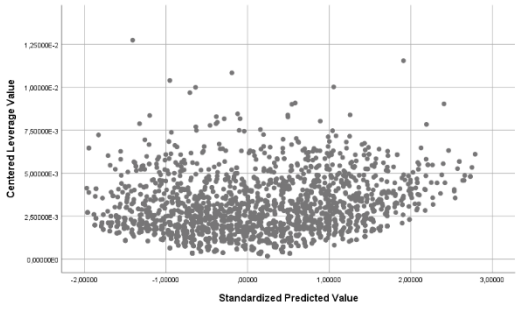


Graphic 1 - Normal probability of residuals



Graphic 1 - Scatterplot

Looking at the graphic 1, it is observed that the points are relatively close to the diagonal, therefore, the residuals are expected to exhibit an approximately normal distribution. In the graphic 2, we can observe that the values are not randomly distributed around "zero", because the variables in this model are ordinal qualitative variables and due to rounding errors, parallel lines are observed with decreasing trend.



Graphic 2 - Leverage

To finalize the residual analysis, studying graphic number 3, it is possible to observe that all the values are acceptable, i.e., none of the leverage values is higher than 0,5.

In order to avoid multicollinearity issues and the possible exclusion of relevant variables by stepwise method, other linear regression model was performed, where the previously defined factors, founded in factorial analysis were considered thought the corresponding scores. This procedure was performed in order to perceive which one of them contributed the most to the explanation the experts' perceptions about the priority of entrepreneurship for national governments.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	0,704	0,496	0,495	0,850

Table 9 - Model Summary

Model 2	Sum of Squares	df	Mean Square	F	Sig.
Regression	1560,805	4	390,201	539,568	0,000
Residual	1588,090	2196	0,723		
Total	3148,895	2200			

Table 10 - Anova

In the new model, the adjusted r^2 is 0,495, i.e., the four factors explain 49,5% of the variance of the dependent variable. Analyzing Table 10, the p-value of the test is approximately 0,000, below the 5% significance level, leading to the rejection of the null hypothesis, i.e., at least one of the factors in the model has a significant effect on the dependent variable.

Model 2		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**Tolerance**	**VIF**
		B	Std. Error	Beta			(Collinearity Statistics)	
1	(Constant)	2,823	0,018		155,760	0,000		
	Financing	0,260	0,018	0,218	14,357	0,000	1	1
	Government Policies	0,786	0,018	**0,657**	43,354	0,000	1	1
	Taxes	0,041	0,018	0,034	2,240	0,025	1	1
	R&D	0,148	0,018	0,124	8,191	0,000	1	1

Table 11 - Contribution of the factors to the model

Examining the last two columns of Table 11, it is verified that there are not multicollinearity problems, since T is not close to zero and VIF is not higher than five. It also shows that factor 2 (Government Policies) is the one that contributed the most to explain the dependent variable, with a percentage higher than the other factors, i.e., the better the perception of the respondents about policies implemented by governments in order to facilitate entrepreneurship, the better their perception of the importance of entrepreneurship as a priority for governments. Authors like Debus et al. (2017) evidence that Public Policies can change how individuals perceive the opportunities and challenges associated to starting a business and self-employment, being one of the most important incentives to increase the entrepreneurial level of the country. The second most important factor is represented by Financing, followed by the R&D factor and finally Taxes.

After analyzing the factor analysis and the two linear regression models, it is possible to confirm all four hypotheses as illustrated in Table 12. Experts' perceptions in terms of Financing, Government Policies, Taxes and R&D all influence their perception about the level of priority given by national governments to help new and growing firms. The results are supported by the literature, Ahmad & Xavier (2012) evidence that inadequate Financing support, Taxes and Bureaucracy, inconsistency of government policies and lack in the entrepreneurial education and R&D are the reasons why countries like Malasia has lower number of early-stage entrepreneurial activities, so it is expected that this factors are important for the experts when evaluating the priority given by the governments in the support for entrepreneurship.

Hypotheses	Expected Sign	Results
H2: Financing influences the experts' perceptions on the government priority supporting new and growing firms.	+	+
H1: Government Policies influence the experts' perceptions on the government priority supporting new and growing firms.	+	+
H3: Taxes influence the experts' perceptions on the government priority supporting new and growing firms.	+	+
H4: R&D influence the experts' perceptions on the government priority supporting new and growing firms.	+	+

Table 12 – Research Hypotheses results

5. Conclusion

Despite most previously published studies tend to focus only on economic growth when studying entrepreneurship importance to the government and the country (Nakamura (2019); Jinjiang et al. (2020)), there are other types of relevant variables, like the relationship between entrepreneurship and well-being. Recent studies found a correlation between entrepreneurship and substantial benefits in terms of psychological functioning, both personal and social (Wiklund et al. (2019); Nikolaev et al. (2020)).

This provides evidence of the importance governments should give to entrepreneurship for boosting the economy growth and creation of new jobs, but also the positive effects on population well-being.

This study contributes to the evaluation of the government priority in helping new and growing firms, using data provide by GEM, applying multivariate analyzes with the objective to identify factors and to study its influence on the perception of the experts.

Through the factorial analysis, it was possible to divide the variables into four groups, based on the theoretical component: Government Policies; Financing, Taxes and R&D.

With the first Multiple Linear Regression and using the Stepwise method, were identified that the most significant variables in the explanation of the dependent variable "In my country, the support for new and growing firms is a high priority for policy at the national government level" are: NES14_B01 – "In my country, Government policies (e g , public procurement) consistently favor new firms"; NES14_B03 – "In my country, the support for new and growing firms is a high priority for policy at the local government level"; NES14_C03 – "In my country, there are an adequate number of government programs for new and growing businesses".

Afterwards, a linear regression was performed in order to understand which factors most contribute to the model, and the Government Policy factor was the one that obtained the best result. These findings complement the results of the previous linear regression, since the three variables that more influence the variable under analysis are part of this factor. In contrast, the least important factor for the model that aims to know the factors that influence the experts' perceptions regarding the existence or not of the priority of the governments to invest in entrepreneurship, was the one that concerns the Taxes.

Analyzing the hypotheses of study, all of them are confirmed, Government Policies, Financing, Taxes and R&D all influence the experts' perceptions on the governmental priority for new and growing firms.

Our conclusion is the importance of the governments' application of public policies to support entrepreneurship. These policies can help to generate jobs, promote national and international competitiveness, economic development and growth (Mason & Brown (2013)). The quality of these policies is the most important factor when the experts evaluate if there is priority by the governmental entities of their countries to promote entrepreneurship.

5.1 Limitations and Future Research

The main limitation of this study is the fact that entrepreneurship is a phenomenon that is very difficult to be measured. In the specific case, the database "GEM 2014 NES GLOBAL NATIONS INDIVIDUAL LEVEL" was used, where the data are obtained through the perception of the respondents, which makes it difficult to guarantee the viability of the obtained results, that can be biased, since distortions in perceptions are common (Cooper et al. (1988)).

It is crucial to evidence the fact that the perceptions of this experts are affected by the national and international economic and politic environment. Ajzen's Theory of Planned Behavior model explains and predicts how the cultural and social environment affects human behavior. It is based on the individuals' intention, which is the result of three elements (Ajzen 1991): the attitude regarding the behavior (personal evaluation), the subjective norms (social pressures) and perceived behavioral control (ability to perform the behavior). Some research has found empirical support for this theory in the area of entrepreneurship (Tkachev and Kolvereid 1999; Veciana et al. 2005; Linãn (2008)).

One limitation of our model is the fact that Linear Regression models are more adequate to continuous quantitative variables and in this case were considered ordinal qualitative variables.

For future research, it is proposed to deepen statistical analysis of a quantitative and qualitative nature, jointly, that evaluate and consider other variables in order to continue the research about the favorable environment to create business in the country, the current theme and whose importance has been widely recognized, combining relevant variables from other databases with those presented by GEM (NES), for example the GDP.

Other interesting future research in this area would be evaluate minutely the correlation between the four factors presented in this study, for example better financing helps the capacity of firms to invest more in the R&D and how the government policies can be directed to decrease taxes and bureaucracies in the process of creating a business.

6. References

Acs, Z. J. (2006). How Is Entrepreneurship Good for Economic Growth? *Innovations Technology Governance Globalization, 1(1)*, 97-107. doi:10.1162/itgg.2006.1.1.97

Ahmad, S. Z., & Xavier, S. R. (2012). Entrepreneurial environments and growth: evidence from Malaysia GEM data. Journal of Chinese Entrepreneurship, 4 (1), 109-120. doi:10.1108/17561391211200939

Ajzen, I. (1991). The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. doi:10.1016/0749-5978(91)90020-T

Amorós, J. E., Poblete, C., & Mandakovic, V. (2019). R&D transfer, policy and innovative ambitious entrepreneurship: evidence from Latin American countries. *The Journal of Technology Transfer, 44*, 1396- 1415. doi:10.1007/s10961-019-09728-x

Audretsch, D. B., Thurik, R., & Grilo, I. (2017). *The Handbook of Research on Entrepreneurship Policy.* Cheltenham, UK : Emerald Group Publishing Limited.

Benz, M., & Frey, B. S. (2008). Being Independent is a Great Thing: Subjective Evaluations of Self-Employment and Hierarchy. *Economica, 75*, 362-383. doi:10.1111/j.1468-0335.2007.00594.x

Block, J., & Koellinger, P. (2009). I Can't Get No Satisfaction—Necessity Entrepreneurship and Procedural Utility. *Kyklos, 62(2)*, 191-209. doi:10.1111/j.1467-6435.2009.00431.x

Burton, M. D., Fairlie, R. W., & Siegel, D. (2019). Introduction to a Special Issue on Entrepreneurship and Employment: Connecting Labor Market Institutions, Corporate Demography, and Human Resource Management Practices. *Cornell University, ILR School, vol. 72(5)*, 1050–1064. doi:10.1177/0019793919866409

C.Cooper, A., Y.Woo, C., & C.Dunkelberg, W. (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing, 3 (2)*, 97-108. doi:10.1016/0883-9026(88)90020-1

Cantillon, R. (1755). *Essai sur la Nature du Commerce en Général.* London: MacMillan: H.Higgs, Ed.

Debus, M., Tosun, J., & Maxeiner, M. (2017). Support for Policies on Entrepreneurship and Self-Employment among Parties and Coalition Governments. Politics & Policy, 45 (3), 338-371. doi:10.1111/polp.12205

Dobson, S., & McLuskie, P. (2020). Performative entrepreneurship: identity, behaviour and place in adventure sports Enterprise. *International Entrepreneurship and Management Journal*, 1-17. doi:10.1007/s11365-020-00661-2

Drucker, P. (1985). *Innovation and Entrepreneurship, Practices and Principles.* New York: Harper and Row.

Duarte, C., & Esperança, J. P. (2014). *Empreendedorismo e Planeamento Financeiro - Transformar oportunidades em negócios. Criar micro, pequenas e médias empresas (2ª Edição).* Lisboa: Edições Sílabo.

Ferreira, M. P., Serra, F. R., & Santos, J. C. (2010). *Ser Empreendedor - Pensar, Criar e Moldar a Nova Empresa (2ª ed.).* Lisboa: Edições Sílabo.

Gartner, W., & Carter, N. M. (2003). *Entrepreneurial Behavior and Firm Organizing Processes.* New York: Kluwer Academic Publishers: In Z. J.Acs & D. B. Audretsch (Eds.), Handbook of entrepreneurship research .

Giraudo, E., Giudici, G., & Grilli, L. (2019). Entrepreneurship policy and the financing of young innovative companies: Evidence from the Italian Startup Act. *Research Policy, 48 (9)*, 1-18. doi:10.1016/j.respol.2019.05.010

Howell, D. C. (2012). *Statistical Methods for Psychology.* Boston: Cengage Learning.

Ikhsan, S., Wahid, N. H., & Mustafa, N. H. (2020). Leveraging the entrepreneurship talents based on Prophet Muhammad's business acumen: The case of Akademi Bakat ABS. *International Journal of Evaluation and Research in Education*, 252-260. doi:10.11591/ijere.v9i1.20303

Jin, C.-H., & Lee, J.-Y. (2020). The impact of entrepreneurship on managerial innovation capacity: The moderating effects of policy finance and management support. *South African Journal of Business Management, 51(1)*, 1-13. doi:10.4102/sajbm.v51i1.246

Jinjiang, H., Nazari, M., Yingqian, Z., & Ning, C. (2020). Opportunity-based entrepreneurship and environmental quality of sustainable development: a resource and institutional perspective. *Journal of Cleaner Production*, 1-15. doi:10.1016/j.jclepro.2020.120390

Liñán, F. (2008). Skill and value perceptions: how do they affect entrepreneurial intentions? *International Entrepreneurship and Management Journal, 4(3)*, 257-272. doi:10.1007/s11365-008-0093-0

Marôco, J. (2010). *Análise Estatística - Com a Utilização do SPSS (3 ed.).* Lisboa: Edições Sílabo .

Mason, C., & Brown, R. (2013). Creating good public policy to support high-growth firms. *Small Business Economics, 40(2)*, 211-225. doi:10.1007/s11187-011-9369-9

Michael, S. C., & Pearce II, J. A. (2009). The need for innovation as a rationale for government involvement in entrepreneurship. *Entrepreneurship & Regional Development, 21(3)*, 285-302. doi:10.1080/08985620802279999

Minniti, M. (2008). The Role of Government Policy on Entrepreneurial Activity: Productive, Unproductive, or Destructive? *Entrepreneurship Theory and Practice, 39 (5)*, 779-790. doi:10.1111/j.1540-6520.2008.00255.x

Nakamura, H. (2019). Relationship among land price, entrepreneurship, the environment, economics, and social factors in the value assessment of Japanese cities. *Journal of Cleaner Production, 217*, 144-152. doi:10.1016/j.jclepro.2019.01.201

Ngwaba, C. A., & Azizi, S. (2019). Effectiveness of tax reform on entrepreneurship. *Journal of Entrepreneurship and Public Policy, 9 (1)*, 94-111. doi:10.1108/JEPP-07-2019-0060

Nikolaev, B., Boudreaux, C. J., & Wood, M. (2020). Entrepreneurship and Subjective Well-Being: The Mediating Role of Psychological Functioning. *Entrepreneurship Theory and Practice*, 1-30. doi:10.1177/1042258719830314

Pestana, M. H., & Gageiro, J. N. (2008). *Análise de Dados para Ciências Sociais. A complementaridade do SPSS, 5ª edição revista e corrigida.* Lisboa: Edições Sílabo.

Praag, M. v. (1999). Some Classic Views on Entrepreneurship. *De Economist, 147(3)*, 311-335. doi:10.1023/A:1003749128457

Ratinho, T., Amezcua, A., Honig, B., & Zengd, Z. (2020). Supporting entrepreneurs: A systematic review of literature and an agenda for research. *Technological Forecasting and Social Change, 154*, 1-20. doi:10.1016/j.techfore.2020.119956

Say, J.-B. (1803). *A Treatise on Political Economy. .* London: Sherwood, Neely and Jones.: E. N. Reprinted by Transactions.

Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *The Academy of Management Review, 25 (1)*, 217-226. doi:10.2307/259271

Shepherd, D. A., & Patzelt, H. (2017). Researching Entrepreneurships' Role in Sustainable Development. *Trailblazing in Entrepreneurship*, 149-179. doi:10.1007/978-3-319-48701-4_5

Shir, N., Nikolaev, B. N., & Wincent, J. (2019). Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness. *Journal of Business Venturing, 34 (5)*, 1-17. doi:10.1016/j.jbusvent.2018.05.002

Silva, C., & Teixeira, A. A. (2011). *Empreendedorismo político local em Portugal. Uma análise exploratória.* Porto: Fep Working Papers.

Souitaris, V., & Zerbinati, S. (2005). Entrepreneurship in the Public Sector: A Framework of Analysis in European Local Governments. *Entrepreneurship and Regional Development, 17(1)*, 1-24. doi:10.1080/0898562042000310723

Stevenson, L., & Lundström, A. (2007). *Dressing the Emperor: The Fabric of Entrepreneurship Policy.* Edward Elgar Pub. doi:10.4337/9781847206794.00010

Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among Russian students. *Entrepreneurship & Regional Development, 11*, 269-280. doi:10.1080/089856299283209

Uy, M. A., Sun, S., & Foo, M.-D. (2017). Affect spin, entrepreneurs' well-being, and venture goal progress: The moderating role of goal orientation. *Journal of Business Venturing, 32(4)*, 443-460. doi:10.1016/j.jbusvent.2016.12.001

Uyanık, G. K., & Güler, N. (2013). A Study on Multiple Linear Regression Analysis. *Procedia - Social and Behavioral Sciences, 106*, 234–240. doi:10.1016/j.sbspro.2013.12.027

Varamaki, E., Joensuu, S., & Viljamaa, A. (2016). Starting up a firm or not: Differences in the antecedents of Entrepreneurial Intentions. *Industry and Higher Education, 30(3)*, 239-249. doi:10.1177/0950422216655046

Veciana, J. M., Aponte, M., & Urbano, D. (2005). University Students' Attitudes Towards Entrepreneurship: A Two Countries Comparison. *The International Entrepreneurship and Management Journal, 1*, 165-182. doi:10.1007/s11365-005-1127-5

Wennekers, S., & Thurik, R. (1999). Linking Entrepreneurship and Economic Growth. *Small Business Economics, 13*, 27-56. doi:10.1023/A:1008063200484

Wiklund, J., Nikolaev, B., Shir, N., Foo, M.-D., & Bradley, S. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing, 34(4)*, 579-588. doi:10.1016/j.jbusvent.2019.01.002

Williams, T. A., & Shepherd, D. A. (2016). Victim entrepreneurs doing well by doing good: Venture creation and well-being in the aftermath of a resource shock. *Journal of Business Venturing, 31 (4)*, 365-387. doi:10.1016/j.jbusvent.2016.04.002

Attach number 1 - Table 13 - Descriptive analysis of the dependent variable

NES14_B02 - "In my country, the support for new and growing firms is a high priority for policy at the national government level"			
		Frequency	**Percent**
Valid	Completely false	408	14,5
	Somewhat false	809	28,7
	Neither true nor false	552	19,6
	Somewhat true	794	28,1
	Completely true	213	7,5
	Total	2776	98,3
Missing	Do not know	37	1,3
	Does not apply	8	,3
	Data missing	2	,1
	Total	47	1,7
Total		2823	100,0
Mean		2,85	
Median		3	
Mode		2	
Std.Deviation		1,205	
Variance		1,452	

CHAPTER 3

Perceptual Variables, Macroeconomic Environment and International Nascent Entrepreneurship

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Abstract

Purpose–Reasons/aims of paper: There are a lot of policies and stimulus to increase the creation of new business, however they do not produce the same effects on different agents, for this reason this paper aims to study the role of different perceptions and characteristics from the different individuals in the decision to become (International) Nascent Entrepreneur.

Research–Methodology: This research considers GEM data, which was collected through the application of a questionnaire to the Adult Population, examining characteristics, motivations and ambitions of individuals starting businesses, as well as social attitudes towards entrepreneurship. A total of 181.281 individual responses were included in this study. The data was analyzed through nine logistic regression models.

Findings–Conclusions: The results of this research show that in addition to the demographic and economic variables, perceptual variables and country-effects variables are also statistically significant for the decision to become (International) Nascent Entrepreneur. The four perceptual variables are highly correlated with the nascent entrepreneur variable and the consideration of national country dummy variables increases the explanation of the variance of the logistic regression models.

Research limitations: The biggest limitation of this paper is that the perceptual variables reflect subjective perceptions rather than objective conditions, a person may consider having the skills and knowledge to start a new business but, in fact, not being qualified to do so.

Practical implications-Applications to practice: This study brings practical implications that subjective perceptions about the fact that the individuals who perceive opportunities, know other entrepreneurs and have confidence in their skills are more likely to become nascent and international entrepreneur, while individuals who fear failure are less likely to do the same. Also, including different individuals' environment as a further component of entrepreneurial behavior and consider the possibility of national country specific effects increment the explained variance of the logistic regression models.

Originality: Although there is a significant amount of research committed to understand the variables that influence the decision to become a Nascent Entrepreneur, very few study the relationship of this variables with International Entrepreneurship. This study explores this correlation analyzing the impact of demographic and economic variables, perceptual variables and country-effect variables in the entrepreneurs with strong international orientation.

Keywords: Entrepreneurs behavior; Perceptions; Internationalization; National environment.

1. Introduction

The academic literature has been paying increasing attention to the phenomenon of entrepreneurship in recent years. There is recognition that entrepreneurship drives the economy of most nations. (Acs et al. (2005); Reynolds et al. (2003)). Entrepreneurs are the pioneers who convert ideas into products and services, create wealth and reduce unemployment.

The topic of entrepreneurship has generated a substantial body of discussion, research and thought. Much of them studying the variables that influence the decision to become entrepreneur, however there is still disagreement evaluating which types of variables are important for this type of study. This paper evaluate the effect of Demographic and Economic characteristics, individual perceptions and national country environment in the decision to start a new business, considering Arenius & Minniti (2005) study.

There are a lot of policies and stimulus for entrepreneurship, however they do not produce the same effects on different agents, that is why it is so important to study the role of different perceptions and characteristics of the different individuals (Entrialgo & Iglesias (2020)). The primordial objective of this report is firstly to update previous studies about the effect of perceptual variables in the nascent entrepreneurship, comparing the obtained results from recent entrepreneurship data sets with previous results, add recent literature in this topic and to add the international entrepreneurship dimension to the study.

Although there is a significant amount of research dedicated to understanding the variables that influence the individuals' decision to create business, there is a gap studying the relationship of this variables with international entrepreneurship. This research investigates this correlation analyzing the impact of demographic and economic variables, perceptual variables and country-effect variables in the entrepreneurs with strong international orientation.

In a first phase of literature review, a number of findings about the variables that influence the nascent entrepreneurship and international entrepreneurship is made, allowing creating the hypotheses of study. Starting with the demographic and economic variables, when thinking about starting a new business, individuals also reflect on a set of personal perceptions about entrepreneurship that they create based on knowing people who has created a business, confidence in their skills and knowledge, fear of failure and opportunities perceptions. After all, entrepreneurship is about people (Arenius & Minniti (2005)).

Moving on to a second phase, with the objective to analyze the variables found in the literature influencing the decision to become entrepreneur and international entrepreneur, with the help of the software SPSS and using a database of the GEM project (Global Entrepreneurship Monitor), nine logistic regression models were performed. The database is composed by a number of 181.281 individual responses from 60 countries studying the attitudes, activities and aspirations in relation to entrepreneurship.

2. Literature Review

Considering the structure of Arenius & Minniti (2005) study, investigating the nascent entrepreneurship and international entrepreneurship, three types of variables are included in this research: Demographic and economic variables; Perceptual variables and Country-Effects variables.

2.1 Demographic and Economic characteristics

Over the past years, entrepreneurship research has shown contradictory outcomes about the role of demographic and economic characteristics, such as age, gender, education, work status and household income on entrepreneurial decisions (Parker (2009); Marques (2017)).

Entrepreneurship is widely known as a youth phenomenon (Arenius & Minniti (2005); Levesque & Minniti (2006); Dileo & Pereiro (2019)). Hundt & Sternberg (2016) have found empirical support indicating that individuals between 25 and 44 years old are the most probable to become nascent entrepreneurs. Klyver

et al. (2013) have also verified that the likelihood of being a nascent entrepreneur diminishes as people grow older.

Alasadi & Abdelrahim (2008), Arteaga & Lasio (2009), Harada (2003) and Kangasharju (2000) defend a negative relationship between the age and firm performance. On the contrary, Ganesan et al. (2003) have pointed out a positive relationship between age and entrepreneurship, demonstrating that an entrepreneurs' age positively affects business performance, Kim (2007) also showed that the probability of self-employment increases with age. In this line it is proposed the following hypothesis:

- H1a. Older age is negatively related to be a nascent entrepreneur.

According to van der Zwan et al. (2013), the possibility of being an established entrepreneur is almost the same for both men and women if they are or have been young entrepreneurs.

Scholars have found that nascent entrepreneurship is a predominantly male activity (Arenius & Minniti (2005)). It is widely acknowledged that females are less likely to be entrepreneurs (Bosma & Levie (2010); Armuña et al. (2020), and according to Wagner (2007)), this difference is mainly caused by their attitudes toward the willingness to take risks. Similarly, Kim (2007) found women to be less likely to be self-employed than men. Clain (2000) suggests that gender differences in self-employment result from discrimination and cultural factors. Brush (1992) found evidence that male entrepreneurs are more likely to have technical and managerial experience than female entrepreneurs and suggested that this gender asymmetry in previous work experiences may contribute to explaining why fewer women than men start businesses.

Koellinger et al. (2013) found that despite the lower startup propensity of women, their success rates, once the venture is established, are higher than men (Marques (2017)). For Marlow & Patton (2005), women tend to take more risk and usually face greater barriers in obtaining adequate financing for their businesses. Based on these arguments it is proposed the following hypothesis:

- H1b. Men are more likely to become nascent entrepreneurs.

Blanchflower & Oswald (1998) and Taylor (1996) have explored the significance of work status and labor markets and have shown that employed individuals are more likely to start new businesses. Evans & Leighton (1989) found that situations of unemployment and poor working conditions increase the probability of creating their own business.

Hundt & Sternberg (2016) explained that being employed increases entrepreneurial activities only in case of nascent and ambiguous entrepreneurs, while unemployment works as a pull factor for potential entrepreneurs (Dileo & Pereiro (2019)).

Acs et al. (2008) has defined the opportunity-seeking entrepreneurship as innovative and carried out by employees or students, when it comes to necessity-based entrepreneurship, defined as more incremental or imitative, is typically carried out by unemployed individuals. Bogenhold et al. (2014) concluded that professionals choosing to be self-employed have mostly opportunity seeking motivations.

The conclusions about this variable are not consistent in the literature, this could be related to the difference of opportunity entrepreneurship and subsistence entrepreneurship. Subsistence entrepreneurship is defined by the entrepreneurial actions undertaken by individuals living in poverty (Viswanathan et al. (2014)) , this could explain the opinion of unemployed people to be more likely to start their own business, not because of the opportunities they perceive but because of their necessity.

The following hypothesis seeks to determine whether the relation between employment and firm creation is positive or not:

- H1c. Being employed is positively related to be a nascent entrepreneur.

The impact of education on entrepreneurial start up may be both positive and negative (Grilo & Thurik (2008)). Higher educational levels have been positively associated to the likelihood of starting a new business (Bates (1995); Reynolds & White (1997); Delmar & Davidsson (2000); Davidsson & Honig (2003); Arenius & Minniti (2005); Hundt & Sternberg (2016); Klyver et al. (2013); Dileo & Pereiro (2019); Brieger et al. (2020)).

Brixy & Hessels (2010) show that different forms of human capital have a substantial influence on the start-up probability of nascent entrepreneurs.

Several authors have found that a highly educated population of young adults has a positive influence on creating a new business (Reynolds et al. (1995); Reynolds (2007); Acs & Armington (2004)). In opposition, other studies have concluded that education is not a determinant factor for clarifying entrepreneurial decisions (Wit & Winden (1989); Thurik et al. (2002)). Bitros & Karayiannis (2010) have pointed out that a negative relation between higher education and entrepreneurship is expected.

Some authors find that entrepreneurs often acquire a large variety of skills but not an advanced or specific education (Murphy et al. (1991); Leazar (2002)).

For Blanchflower (2004), no definitive evidence exists on the relationship between education and entrepreneurship for either men or women, and the literature offers some conflicting results. Van der Zwan &Thurik (2017) concluded that the relationship between education and entrepreneurship is not significant or negative at the final entrepreneurial stages. Thus, the following hypothesis is formulated:

- H1d. Higher education has a positive effect on the decision to become a nascent entrepreneur.

Evans & Jovanovic (1989), Kihlstrom & Laffont (1979) and Smallbone & Welter (2001) have shown that entrepreneurial decisions are positively related to individuals' incomes and wealth since the income availability weakens financial constraints.

One of the determinants of how much household income people invest in risky assets is their net wealth and income level (Gollier (2002); Guiso et al. (2002;2003)). High income levels allow individuals to distribute their wealth in a bigger range of investments, including riskier ones (Maula et al. 2005). Also, most entrepreneurs finance the initial stages of their business almost entirely with own savings (Bygrave & Hunt (2005); Bygrave & Quill (2006)). Mickiewicz et al. (2017) have found that entrepreneurs with higher income are more likely to reach advanced entrepreneurial stages (Dileo & Pereiro (2019)).

Hundt & Sternberg (2016) defined that in the relationship between income level and entrepreneurship is not clear and that entrepreneurial activities are strongly related to the opportunity or necessity instead (Pines et al. (2010)). Based on these previous arguments we propose the following hypothesis:

- H1e. The higher the household income, the higher the propensity to be a nascent entrepreneur.

2.2 Perceptual Variables

Empirical entrepreneurship research has increasingly incorporated perceptual variables labeled by various researchers as alertness to opportunities perception; fear of failure; confidence about one's skills and knowing other entrepreneurs (Arenius & Minitti (2005); Koellinger et al. (2013); Marques (2017)).

Most research on opportunity recognition is directed in research on human cognition and suggests that individuals perceive opportunities by using cognitive frameworks they have acquired through past experiences (Baron (2006); Shane et al. (2003)). Some authors agree that opportunity recognition represents the most distinct and fundamental of entrepreneurial behaviors (Baron (2006); Eckhardt & Shane (2003); Shane & Venkataraman (2000)).

A number of studies have concluded that opportunities perceptions have a positive influence in the entrepreneurship decision (Shane (2000); Gaglio & Katz (2001); Eckhardt & Shane (2003); Baron (2004)).

Maula et al. (2005) say that when individuals' ask themselves if there are any entrepreneurial opportunities, they are evaluating their own confidence in the economic environment. So, if the individuals' evaluation of the opportunities is positive, their attitude toward entrepreneurial behavior should be positive too.

New business creation is a task requiring personal perseverance and the belief that good opportunities exist (Minniti (2010)). This opinion is tested in the following hypothesis:

- H2a. The greater opportunities perceptions, the higher the propensity to be a nascent entrepreneur.

Similarly to opportunity recognition, the significance of confidence in our skills and capability for entrepreneurial behavior is also recognized by the literature (Minniti, (2009)). The perception of the risk is moderated by the confidence that individuals' have in their skills and abilities (Amit et al. (1993)). The entrepreneur can handle high-risk circumstances, recognizing that the risk is lower due to their confidence in their capacity to handle it (Ramos-Rodríguez et al. (2012)).

According to the theory of planned behavior (Ajzen, (1991)), when individuals believe that they can achieve an important objective, like create a business, the more likely they will behave in such a way as to accomplish that goal. Also, higher entrepreneurial propensity has also been linked to self-confidence and an illusion of control (Rotter (1966) and Harper (1998)).

Shane (2000), Gaglio & Katz (2001), Eckhardt & Shane (2003) and Baron (2004) have all found a positive correlation between having confidence in one's skills and being a nascent entrepreneur. Koellinger et al. (2007) confirm this result using GEM data from 2001 but show that the confidence linked with our own skills and ability declines as more experienced entrepreneurs are.

Acting on perceived opportunities, requires self-confidence and the belief in one's own knowledge and ability to succeed (Minniti (2010)). In this line the following hypothesis is proposed:

- H2b. Higher Confidence in one's skills is positively related to the propensity to be a nascent entrepreneur.

An individuals' tolerance for risk may also be important for entrepreneurial decisions (Iyigun & Owen (1998); Kihlstrom & Laffont (1979); Wu & Knott (2006)). Shane (2000) explains that the fear of failure is negatively related to the probability of becoming an nascent entrepreneur because the willingness to assume risks is inherent to the entrepreneur (Marques (2017)). Wyrwich et al. (2016) have shown that entrepreneurial intentions are negatively correlated with fear of failure (Dileo & Pereiro (2019); Brieger et al. (2020)).

Johnson & Powell (1994), talking about attitudes defend that women present a lower propensity to risk than men and appear to be more risk averse than men (Levin et al. (1988)). Overall, although there is an agreement that individuals' with lower risk tolerance are less likely to be nascent entrepreneurs, no final evidence has yet been found with respect to gender differences (Bengtsson et al. (2005)).

For Cramer et al. (2002), although studies support the existence of some negative effects of risk aversion on nascent entrepreneurial decisions, the direction of causality is unclear. Therefore it can be stated that:

- H2c. The higher fear of failure, the lower the propensity to be a nascent entrepreneur.

Personally knowing other entrepreneurs should create optimistic attitudes toward entrepreneurs, by the theory of planned behavior (Ajzen (1991); Brieger et al. (2020)). Knowing other entrepreneurs also

improves individuals' perception that they can control the necessary actions to create a business (Ramos-Rodríguez (2012)). Veciana (2007) defends that individuals' who know entrepreneurs either from their close geographical environment or from direct relations may listen to facts that make the likelihood of creating a business and being successful in the attempt seem credible. Thus individuals' who can capture and reproduce their "entrepreneurial roles" will be more expected to become entrepreneurs too.

In addition, Ellsberg (1961) and Tversky & Kahneman (1992) also believe that knowing other entrepreneurs may increase the propensity of an individual to start a business. Based on these previous arguments the following hypothesis is presented:

- H2d. Knowing other entrepreneurs increases the propensity to be a nascent entrepreneur.

2.3 Country-Effects

The importance of country-level culture for entrepreneurship has been established since Hofstede's (1980) contribution.

Factors regarding the regional environment gained more importance when scholars (Audretsch & Fritsch (2002); Bade & Nerlinger (2000); Brixy & Grotz (2007); Bosma (2009); Acs & Armington (2004)) tried to explain the individuals' propensity to start a firm or to explain a firm growth. The studies for most of the regions and countries show that irrespective of differences embodied in the individual itself, there are strong regional impacts on an individuals' propensity to be entrepreneur (Brixy et al. (2012)). Feldman (2001) argues that entrepreneurship is primarily a "regional event."

Extensive research has shown a link between macroeconomic variables and entrepreneurship (Hofstede et al. (2004); Liñán & Fernández (2013); Hundt & Sternberg (2016); Brieger et al. (2020)). Aggregated figures, such as unemployment rates, GDP growth and GDP per capita, influence the decision to become an entrepreneur rather than working for others. Macroeconomic characteristics such as GDP per capita and the business cycle have been considered an influence on the entrepreneurship decision, together with institutions and policies (Levie et al. (2014)). Institutions and their development over time are shaped by culture and because culture persists in the very long-term, it generates the path-dependence of institutional frameworks (Storr (2012)).

In fact, opportunity startups in richer economies are normally related with more education, experience, and better networking which confirms once again the importance of the cultural environment in the entrepreneur phenomenon ((Buttner & Moore (1997); (Gatewood et al. (2009)).

In addition to demographic and economic characteristics and individual perceptions, it is considered the significance of the macroeconomic environment on entrepreneurial decisions by presenting the possibility of country-effects, just like Arenius & Minniti (2005). This opinion is tested in the following hypothesis:

- H3a. Country-effects affect the entrepreneurial decisions.

2.4 International Entrepreneurship

International Entrepreneurship is a largely investigated theme in the last decades (McDougall (1989); McDougall et al. (2003); Jones et al. (2011); Terjesen et al. (2016); Reuber et al. (2018); Tabares et al. (2020)).

The literature reveals a discrepancy towards the influence of cognitive styles, psychological characteristics and personality traits in the international entrepreneurship process (Acedo & Jones (2007)). There are several entrepreneurs' characteristics associated with motivations and perceptions which can be identified in early internationalization. Some of these motivations are related to the entrepreneurs' needs and personality, while others depict the competitive landscape of the ventures' environment. Identifying entrepreneurs' motivations can be crucial for understanding how resources and strategic decisions are

managed (Zahra et al. (2005)). The studies about how entrepreneurs' characteristics are associated with the decision to internationalization have increased in the last years, Tabares et al. (2020) for example studies the international entrepreneurial behaviors pursuing opportunities across national borders.

Considering other perceptual variables, Davidsson & Honig (2003) relate that entrepreneurs whose network includes other entrepreneurs are more likely to develop export intentions, than entrepreneurs who do not have such relations. Manolova et al. (2002) defend that an optimistic perception of the business environment provides owners with skill sets that make the internationalization process less uncertain. About the effect of risk aversion, Evald et al. (2011) argue that risk aversion affects not only the start-up decision but also its international scope as well.

It is also mentioned by several authors that international entrepreneurship is affected by the domestic environment of the different countries (Jones & Coviello (2005); Etemad (2004a)). Dimitratos et al. (2004) state that the alignment of entrepreneurship with proper domestic environmental conditions enhances international performance. Peiris et al. (2012) refer that when analyzing the decision to international entrepreneurship, it is not enough to focus only on the entrepreneurs and the firms but in the environment in which they are inserted.

Thus, the following hypotheses are formulated:

- H4a: The decision to internationalization is related to the nascent entrepreneurs' perspectives and individual characteristics.
- H4b: The decision to internationalization is affected by the macroeconomic environment.

In the Table 1 a summary of the research hypotheses and the literature which suggests theses hypotheses is presented.

Hypotheses formulated	Theoretical Support
H1a. Older age is negatively related to be a nascent entrepreneur.	Arenius & Minniti (2005); Levesque & Minniti (2006); Hundt & Sternberg (2016); Klyver et al. (2013); Alasadi & Abdelrahim (2008); Arteaga & Lasio (2009); Harada (2003); Kangasharju (2000).
H1b. Men are more likely to become nascent entrepreneur.	Arenius & Minniti (2005); Bosma & Levie (2010); Wagner (2007); Kim (2007); Brush (1992).
H1c. Being in employment is positively related to be a nascent entrepreneur.	Blanchflower & Oswald (1998); Hundt & Sternberg (2016) ; Acs et al. (2008).
H1d. Higher education level of the entrepreneur has on average a positive effect on nascent entrepreneurship decisions.	Bates (1995); Reynolds & White (1997); Delmar & Davidsson (2000); Davidsson & Honig (2003); Arenius & Minniti (2005); Hundt & Sternberg (2016); Reynolds et al. (1995); Reynolds (2007); (Acs & Armington (2004).
H1e. The higher the household income, the higher the propensity to be a nascent entrepreneur.	Evans & Jovanovic (1989); Kihlstrom & Laffont (1979); Smallbone & Welter (2001); Gollier (2002); Guiso et al. (2002;2003); Maula et al. 2005; Bygrave & Hunt (2005); Bygrave & Quill (2006); Mickiewicz et al. (2017).
H2a. The greater opportunities perceptions, the higher the propensity to be a nascent entrepreneur.	Baron (2006); Eckhardt & Shane (2003); Shane (2000); Gaglio & Katz (2001); Eckhardt & Shane

	(2003); Baron (2004)); Shane & Venkataraman (2000); Minniti (2010)).
H2b. Higher Confidence in one's skills is positively related to the propensity to be a nascent entrepreneur.	Minniti (2009); Amit et al. (1993)); Ramos-Rodríguez et al. (2012); Ajzen (1991); Shane (2000); Gaglio & Katz (2001); Eckhardt & Shane (2003); Baron (2004); Koellinger et al. (2007); Minniti (2010).
H2c. The higher fear of failure, the lower the propensity to be a nascent entrepreneur.	Iyigun & Owen (1998); Kihlstrom & Laffont (1979); Wu & Knott (2006); Shane (2000); Minniti (2010); Bengtsson et al. (2005).
H2d. Knowing other entrepreneurs increases the propensity to be a nascent entrepreneur.	Ajzen (1991); Ramos-Rodríguez (2012); Veciana (2007) ; Ellsberg (1961); Tversky & Kahneman (1992).
H3a. Country-effects affect the entrepreneurial decisions.	Hofstede (1980); Audretsch & Fritsch (2002); Bade & Nerlinger (2000); Brixy & Grotz (2007); Bosma (2009); Acs & Armington (2004); Feldman (2001); Liñán & Fernández (2013); Hundt & Sternberg (2016)); Levie et al. (2014); Storr (2012); Gatewood et al. (2009).
H4a: The decision to internationalization is related to the nascent entrepreneurs' perspectives and individual characteristics.	Acedo & Jones (2007); Zahra, Korri & Yu (2005); Tabares et al. (2020); Davidsson & Honig (2003); Manolova et al. (2002); Evald, Klyver & Christensen (2011).
H4b: The decision to internationalization is affected by the macroeconomic environment.	Jones & Coviello (2005); Etemad (2004a); Dimitratos, Lioukas & Cartera (2004); Peiris, Akoorie & Sinha (2012).

Table 1 – Research Hypotheses formulated and their theoretical

3. Methodology

3.1 Population, sample and data collection

In this study, multivariate statistical analysis tools were applied, with the help of the software SPSS, in order to analyze the questionnaires of the database of the "GEM 2015 APS GLOBAL INDIVIDUAL DATA" project. The data used is from the GEM project from 2015. The data research is divided into two major groups: APS (Adult Population Survey) and National Expert Survey (NES). APS surveys are related to attitudes, activities and aspirations in relation to entrepreneurship, while the NES studies the environment to create business in the country, carried out with professionals of diverse areas. In the practical part of this report is used the Adult Population Survey (APS). Presenting questionnaires to the adult population, the GEM project estimates the prevalence rates of new businesses across numerous countries. In every country, a standardized survey was directed to a representative sample of adults generating a cross-country total of 181.281 respondents for the variables in study.

To explore individuals' perceptions and characteristics in the process of starting a business, following Arenius & Minniti (2005) study, respondents were asked: [bstart] ''You are, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others?''. Individuals that responded ''yes'' were questioned two extra questions, used to separate the ones who

were genuinely committed to become entrepreneur from those thinking about it but not yet committed. These questions inquired [suacts] ‘‘Over the past twelve months have you done anything to help start a new business?’’ and [suown] ‘‘Will you personally own all, part, or none of this business?’’ Only those respondents, who answered ‘‘yes’’ to the first question and ‘‘all’’ or ‘‘part’’ to the second question, were identified as nascent entrepreneurs. A total of 16.580 nascent entrepreneurs were identified in the sample. Of the 16580 nascent entrepreneurs, only 1724 have a strong international orientation, representing 10.4% of the entrepreneurs. The variable “internationalization” is also used in the models 6,7,8 and 9 as dependent variable using the variable [TEAEXPST] “TEA: strong international orientation (more than 25% of revenue from outside country)”.

In this research were included all countries available in the 2015 GEM data (60) aiming to wider conclusions.

Through this practical part, with the goal to identify what variables are significantly associated with an individuals' decision to start a new business, is released a descriptive analysis and several logistic regression models are provided. A set of nine logistic regression models is produced estimating the likelihood of an individual create a new business and having strong international orientation given the following independent variables (Table 2).

	Variables	Description/Question
Demographic and Economic variables	Age	What is your current age (in years)?
	Gender	What is your gender?
	Education	GEM harmonized educational attainment - ‘‘No education’’, ‘‘Some secondary education’’, ‘‘Secondary degree’’, ‘‘Post-secondary education’’, and ‘‘Grad Exp’’. In the logistic regression model, the ‘‘No education’’ category is used as the reference category.
	Work Status	GEM harmonized work status: 3 categories - ‘‘Full or part time work’’, ‘‘Not working’’, and ‘‘Retired or student’’. In the logistic regression model, ‘‘Full or part time work’’ is used as the reference category.
	Household Income	GEM income recoded into thirds: lower, middle or upper level of income. In the logistic regression model, the “lower income” is used as the reference category.
Perceptual variables	Opportunity Perception	In the next six months, will there be good opportunities for starting a business in the area where you live?
	Knowing Other Entrepreneurs	Do you know someone personally who started a business in the past 2 years?
	Confidence in one’s skills	Do you have the knowledge, skill and experience required to start a new business?
	Fear of failure	Would fear of failure would prevent you from starting a business?
	Perceptual variables	Responses were coded as binary variables with 1 indicating a yes response and 0 indicating a no response.
	Country dummy variables	A dummy for each individual country was constructed (e.g., Portugal = 1 if country is Portugal.; otherwise Portugal = 0) and selected USA as the reference country and coded it as -1 on all other country dummies. USA was selected because its nascent prevalence rate is ≈9% which is also the average across all 60 countries in our sample.

Table 2 – Independent Variables and their description.

4. Results and Discussion

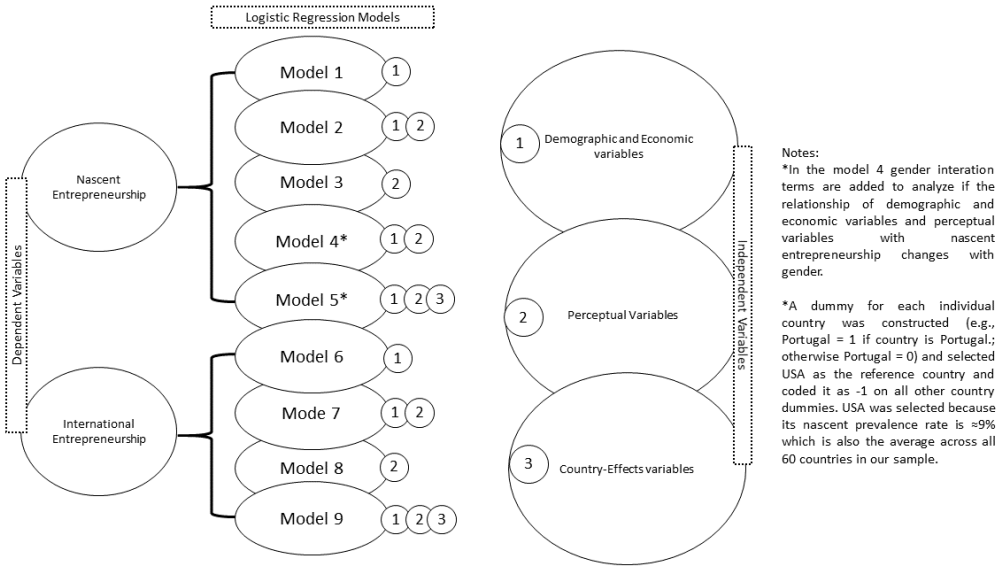
4.1 Results

4.1.1 Correlation of the variables

A correlation matrix for the variables was calculated and all the variables have a significant correlation ($p<0.01$) with the dependent variable. Regarding normality, since the sample is large ($n> 30$), a normal distribution is assumed having in mind the Central Limit Theorem (CLT). There is no presence of multicollinearity, since the VIFs´ are less than 5 and the Ts´ are higher than 0,1. It is now possible to follow to the logistic regression models. These results are presented in the Attach 1 .

4.1.2 Logistic Regression Models

Contextualizing, in order to make it easier to perceive the models presented below, the Scheme 1 was made in which it is possible to see the two dependent variables as well as the models where they are inserted. Ahead of the models it is possible to see which independent variables are included in the model, being represented by: 1- Demographic and economic variables; 2 - Percentual variables; 3 - Country-Effects Variables.



Scheme 1 – Logistic Regression Models

Model 1 used the enter method (Attach 2), includes variables measuring the five demographic and economic characteristics. Consistently with the literature, our results indicate that individuals' demographic and economic circumstances are very important for understanding the likelihood of being a nascent entrepreneur. The chi-square reveals that the overall model is significant at the 0.000 level and it expects 90,2% of the responses correctly. All variables are significant, except one education category (Secondary degree).

Overall, entrepreneurship is as said by Levesque & Minniti (2006), a young men's game. The coefficients of age and gender show a negative and significant association with the prevalence of nascent entrepreneurs. This is consistent with existing empirical and theoretical literature showing that the

relationship between age and the likelihood of starting a new business picks at a relatively early age and decreases thereafter. The odds ratio for gender is 0.776, what suggests that women are less likely to start a new business than men and this is consistent with previous empirical findings as Bosma & Levie (2010).

Work status has a statistically significant impact on the likelihood of being a nascent entrepreneur. In particular, and contrary to Arenius & Minnitis' (2005) findings, with an odds ratio of 5,8 our results show that unemployed individuals are 5,8 more likely to be nascent entrepreneurs than people working (Hundt & Sternberg (2016)). Also, students (B= 1,029) are 2,8 more likely to become nascent entrepreneurs than individuals working (Acs et al. (2008)). Analyzing the education, the conclusions are not cohesive since one of the categories is not significant and another is significative only in p≤0,05. Our results suggest that the probability of being nascent entrepreneur increases 1,7 as individuals' have some secondary education (B= 0,529) but decreases with post-secondary education (B= -0,141). This result may be in part justified by the countries included in our sample, since this research includes developing countries too, where the education level is normally lower.

Finally, household income is associated with the likelihood of starting a new business. As higher levels of income are considered (B= -0,274), the individuals with higher income are only 0,76 as likely to create a new business as those who have lower income. This goes against the opinion of several authors, however there is a possibility that this association is not clear (Hundt & Sternberg (2016)).

Next, the four perceptual variables were added to the demographic and economic ones, in the Model 2. The model is significant and better than Model 1 in explaining the probability of an individual being a nascent entrepreneur, since it displays a higher adjusted r^2. In this model, the importance of the demographic and economic characteristics is virtually unchanged with the particularity that the variable education have now only one significant category. Analyzing the four perceptual variables, all are highly significant. Opportunity perceptions have an odds ratio of 2,1, which means individuals who perceive opportunities are 2,1 more likely to become nascent entrepreneurs. The odds ratio for the confidence in individuals' own knowledge, skills and experience is 4,68. This indicates that individuals' who perceive themselves as having the necessary skills are 4,68 times more likely to be nascent entrepreneurs than those who do not believe to have the necessary skills. Our results of the significative and positive influence of this variable are consistent with the idea of Minniti (2010) that after perceiving opportunities, requires self-confidence and the belief in one's own knowledge and ability to succeed.

The individuals' who fear the failure are only 0,69 as likely to start a new business as those who do not fear the failure. The relation between this variable and the possibility of being a nascent entrepreneur is consistent with the willingness to assume risks is inherent to the entrepreneur (Shane (2000)). Finally, the respondents who know other entrepreneurs are 2,2 times more likely to be a nascent entrepreneur. The positive effect of knowing other entrepreneurs could be explained by the fact that knowing individuals with their own successful business make individuals' get the perception that they can control the necessary actions to create a business (Ramos-Rodríguez (2012)).

Overall, the perceptual variables are very important into the study of the likelihood of being a nascent entrepreneur and their impact on this study is even stronger than that the demo-economic variables.

In Model 3, the logistic regression was produced only with the four perceptual variables. All four are highly significant and comparing the odds ratio of these four variables in previous Model and Model 3 indicates that they are literally equal, adding the demographic and economic variables has a minimal effect on them. In this model is confirmed that the perceptual variables are better to explain the nascent entrepreneur variable, since the adjusted r^2 in this model is 0,205 and the adjusted r^2 in the model 1 where only the demo-economic variables were included is 0,072.

In model 4, was considered if the gender changes the relationship between starting a new business and the independent variables by adding gender interaction terms. The results of this model suggest that the interaction between the probability of becoming a nascent entrepreneur and the age and three of the perceptual variables do not differ on gender. The other variables only show significative results in some categories. Thus, consistently with existing literature and supporting the Arenius & Minniti (2005) study, our results suggest that there are few individual level alterations between the different gender, and that

environment and institutional factors of the countries should be studied to explain the lower entrepreneurship rate for women. For Verheul & Thurik (2001) women are less entrepreneurs because of the discrimination in financing practices. When analyzing the perceptual variables, model 4 suggests that the relationship between the likelihood of becoming a nascent entrepreneur and three perceptual variables are not correlated with gender differences. The confidence in one's skills has a positive and significative relation with gender only when p≤0,05. However, authors like Schiller & Crewson (1997) found that, while not particularly important for men, role models and marriage were positively related to the supply of female entrepreneurs, so the importance of the gender in this variables is not perfectly understood yet.

Both genders who know other entrepreneurs and who recognize the presence of good opportunities are more likely to starting a new business. Finally, both men and women who are less afraid of failure are more likely of starting a new business. These results seem to reinforce the importance of perceptual variables as drivers of entrepreneurial behavior for both genders.

Next, in the Model 5, was tested the Impact of country-effects by using deviation coding. This allows comparing each individual country against the mean for all countries. A dummy for each individual country (e.g., Portugal = 1 if country is Portugal.; otherwise Portugal = 0) was constructed and selected USA as the reference country and coded it as -1 on all other country dummies. USA was selected because its nascent prevalence rate is ≈9% which is also the average across all 60 countries in our sample. Then, are entered all the dummy variables into the logistic regression analysis. The effects of age and gender remain significant and negative in this model.

Non-working and retired/students continue to show positive and significant relation to engage in nascent entrepreneurship. The education is only significative and negative in one category (post-secondary). All perceptual variables remain highly significant. Finally, for 48 of the 60 countries, the country effect dummies are significant.

Consistently with existing literature (Hofstede et al. (2004); Liñán & Fernández (2013); Hundt & Sternberg (2016)), our results suggest that, given the different type of macroeconomic environments of some countries are more favorable to entrepreneurial behavior while others penalize it. However, this connection between cross-country and country specific drivers of creation of new businesses is a very complex variable in entrepreneurship that needs much more work to have solid conclusions.

Of the 16580 nascent entrepreneurs, only 1724 have a strong international orientation, representing 10.4% of the entrepreneurs.

The Model 6 is equivalent to the model 1 but this time with the variable International Entrepreneurship as dependent variable. This variable is used as dependent variable in the models 6,7, 8 and 9.

The results in the model 6 identify that the higher the age the less likely to become international entrepreneur and men are more likely to create international new business. Identical to model 1 with the difference that all variables are significant in this model, individuals being employed, with higher education and higher income are less likely to choose international entrepreneurship. For example, unemployed individuals are 4,7 times more like to become international entrepreneur and individuals with graduate degree are only 0,6 as likely to have international orientation comparing to those with no education. This model explains only 4,5% of the variance.

In the next model, the perceptual variables were added. With the perceptual variables implemented in the study the adjusted r^2 increases to 10,6% which proves that this type of variables is not only important in the study of entrepreneurship but to international entrepreneurship too. The demographic and economic variables results stays the same. Analyzing the perceptions of the Individuals, similar to nascent entrepreneurship, individuals who perceive opportunities (odds ratio = 1,6), know other entrepreneurs (odds ratio =1,9) and have confidences in their skills (odds ratio = 3,4) are more likely to invest in the international entrepreneurship. The respondents with fear of failure are only 0,69 as likely to invest in the international orientation compare to those who do not are afraid of failure. The same results are found

in model 8, where can be seen that perceptual variables explain better the international entrepreneurship than demo-economic ones, since Its displays a higher adjusted r^2 than the model 6.

In the model 9, using the same method as model 5, testing if the country-effects are important in the study of internationalization too, the dummy variables are inserted in the logistic regression. Proving that macroeconomic environment influences the decision to international entrepreneurship, the adjusted r^2 of this model is 17,6%, being the higher result of the four models that study the strong international orientation by the entrepreneurs. For 49 of the 60 countries, the country-effects dummies are significant.

Analyzing the four models it is concluded that all the three types of variables are statistically significant and related with international orientation in entrepreneurship.

Dependent Variable (Nascent Entrepreneurship)		Model 1		Model 2		Model 3		Model 4 (Interaction terms with gender)		Model 5	
Independent Variables:		Significant	Sign	Significant	Sign	Significant	Sign	Significant	Sign	Significant	Sign
Age		Yes	-	Yes	-			No		Yes	-
Gender		Yes	-	Yes	-					Yes	-
Work Status	Working*	Yes		Yes				Yes		Yes	
	Not Working	Yes	+	Yes	+			No		Yes	+
	Retired / Student	Yes	+	Yes	+			Yes	-	Yes	+
Education	None*	Yes		Yes				Yes		Yes	
	Some secondary	Yes	+	Yes	+			No		Yes	-
	Secondary degree	No		No				Yes	+	Yes	-
	Post-secondary	Yes	-	No				Yes	+	Yes	-
	Grad Exp.	Yes	-	No				No		Yes	-
Income	Lowest*	Yes		Yes				Yes		Yes	
	Middle	Yes	-	Yes	-			Yes	+	Yes	-
	Upper	Yes	-	Yes	-			No		Yes	-
Opportunity perception				Yes	+	Yes	+	No		Yes	+
Confidence in one's skills				Yes	+	Yes	+	Yes	+	Yes	+
Fear of failure				Yes	-	Yes	-	No		Yes	-
Knowing other entrepreneurs				Yes	+	Yes	+	No		Yes	+
Country-Effects										48/60 countries significant	

Dependent Variable (International Entrepreneurship)		Model 6		Model 7		Model 8		Model 9	
Independent Variables:		Significant	Sign	Significant	Sign	Significant	Sign	Significant	Sign
Age		Yes	-	Yes	-			Yes	-
Gender		Yes	-	Yes	-			Yes	-
Work Status	Working *	Yes		Yes				Yes	
	Not Working	Yes	+	Yes	+			Yes	+
	Retired / Student	Yes	+	Yes	+			Yes	+
Education	None*	Yes		Yes				Yes	
	Some secondary	Yes	-	Yes	-			Yes	-
	Secondary degree	Yes	-	Yes	-			Yes	-
	Post-secondary	Yes	-	Yes	-			Yes	-
	Grad Exp.	Yes	-	Yes	-			Yes	-
Income	Lowest*	Yes		Yes				Yes	
	Middle	Yes	-	no				Yes	-
	Upper	Yes	-	Yes	-			No	
Opportunity perception				Yes	+	Yes	+	Yes	+
Confidence in one's skills				Yes	+	Yes	+	Yes	+
Fear of failure				Yes	-	Yes	-	Yes	-
Knowing other entrepreneurs				Yes	+	Yes	+	Yes	+
Country-Effects								49/60 countries significant	
Note: * = Reference Variables									

Table 3 – Significance and Sign of each variable in the logistic regression models.

After analyzing all nine models, is possible to conclude that older individuals are less likely to become entrepreneurs, so the hypothesis number 1a is confirmed. Taking into account our results, is more likely that male individuals become nascent entrepreneurs, so the hypothesis number 1b is confirmed too. The hypothesis number 1c is declined, the results show that unemployed individuals and students are more likely to be entrepreneurs, this was expected by some authors like Evans & Leighton (1989) and Acs et al. (2008). The results about education are not completely solid, since some categories of this variable are not significant to the study, but overall, the higher the education the less likely to be a nascent entrepreneur, declining the hypothesis 1d. The final hypothesis regarding demo-economic variables analyses the income, and going against the predicted by the literature, the higher the income the less likely to become a nascent entrepreneur, so the hypothesis 1e is not supported by our results.

Analyzing the perceptual variables, all the four hypotheses (2a,2b,2c and 2d) are confirmed, the greater opportunities perceptions, higher confidence in one's skills and knowing other entrepreneurs increases the propensity to be a nascent entrepreneur. On the opposite and as predicted by the literature, the higher fear of failure, the lower the propensity to be a nascent entrepreneur. The next hypothesis explore

if the country-effects affect the entrepreneurial decisions, and this hypothesis is confirmed by our results since the model five is the one that explains better the dependent variable, with the higher adjusted r^2 of all models. The hypothesis 3a is supported by our results.

The hypotheses 4a and 4b are also accepted which means the decision to international entrepreneurship is influenced by the perceptual variables but also by the environment and culture of the different countries.

To finalize this section, the results are summarized in the Table 4.

Hypotheses formulated	**Results**
H1a. Older age is negatively related to be a nascent entrepreneur.	Confirmed
H1b. Men are more likely to become nascent entrepreneur.	Confirmed
H1c. Being in employment is positively related to be a nascent entrepreneur.	Declined
H1d. Higher education level of the entrepreneur has on average a positive effect on nascent entrepreneurship decisions.	Declined
H1e. The higher the household income, the higher the propensity to be a nascent entrepreneur.	Declined
H2a. The greater opportunities perceptions, the higher the propensity to be a nascent entrepreneur.	Confirmed
H2b. Higher Confidence in one's skills is positively related to the propensity to be a nascent entrepreneur.	Confirmed
H2c. The higher fear of failure, the lower the propensity to be a nascent entrepreneur.	Confirmed
H2d. Knowing other entrepreneurs increases the propensity to be a nascent entrepreneur.	Confirmed
H3a. Country-effects affect the entrepreneurial decisions.	Confirmed
H4a: The decision to internationalization is related to the nascent entrepreneurs' perspectives and individual characteristics.	Confirmed
H4b: The decision to internationalization is affected by the macroeconomic environment.	Confirmed

Table 4 – Results Summarized.

5. Conclusions

Our research contributes to the literature by analyzing the role of personal-level variables on developing new models to understand the process leading to be nascent entrepreneur and also international entrepreneur (Liñán and Fayolle (2015); Ruiu and Breschi (2019); Tabares et al. (2020)). Recent research has shown that even well-known and well-settled models, such as the Theory of Planned Behavior, can be enriched by adding this type of variables (Fayolle and Liñán (2014); Fuller et al. (2018); Entrialgo and Iglesias (2020)).

To achieve the initial goals, this study contributes to this line of research by proposing and testing a moderated model examining the effects of a relevant personal-level variables on entrepreneurial intention. We used the GEM 2015 APS global individual data to estimate binominal logistic regression

models in order to study the variables influencing nascent entrepreneur and the international entrepreneurship in addiction to economic and demographic, perceptual variables and country related dummies were used to account for macroeconomic differences.

Our conclusions suggest that younger and male individuals are more likely to be nascent entrepreneurs and international entrepreneurs. The results about education, income and work status are not in line with the theory, i.e., individuals with a job, higher income and higher education are all less likely to become nascent and international entrepreneurs.

As discussed in the literature, this results can be explained by the subsistence entrepreneurship (Viswanathan et al. (2014)), since our study includes developing countries where in general there is lower level of education, income and higher unemployment. This individuals with lower education, lower income and with no job, are more likely to become entrepreneurs than the ones who are already employed our can easily found a job.

The four perceptual variables are highly correlated with being both nascent entrepreneur and International entrepreneur. Those who perceive opportunities better, know other entrepreneurs and have confidence in their skills are more likely to become nascent and international entrepreneur while individuals who fear failure are less likely to do it.

Finally, the country-effects are also important on entrepreneurial studies since the national culture of each country influences both the perceptions of the individuals' as well as the entrepreneurial decisions.

5.1 Limitations and Future Research

The results of studies like Ramoglou and Tsang (2016) show that demand factors, such as product novelty, market competition and supply factors (Alvarez and Barney (2007, 2010)) are important and related to entrepreneurship. Therefore, including addiction country level variables may contribute to the study of international nascent entrepreneurship.

Differences in the country-effects such as technology, economic development, institutions and culture cause differences in the perceptual variables, so future research about how much these two categories of variables are related is relevant.

The biggest limitation of this paper is that the perceptual variables reflect subjective perceptions rather than objective conditions, a person may consider to have the skills and knowledge to start a new business but, in fact, not being qualified to do so (Minniti (2009)). As a result, they are likely to be biased since distortions in perceptions are common (Cooper et al. (1988); Busenitz and Barney (1997)). These variables were measured only with 2 options, being "yes" or "no" but cannot be guaranteed that a "yes" from individual number one is equal to the "yes" of the number two. So, instead of the Boolean logic in which the values of the variables are usually denoted 1 and 0 like in this case, we suggested future studies the include of Fuzzy logic, in which the truth values of variables may be any real number between 0 and 1 both inclusive. For that, one recommends the creation of a questionnaire with additional categories.

Another limitation in this research is the fact that international entrepreneurship was measured only with the international orientation level, so for future research on the international entrepreneurship, could enjoy of the creation of a better measure for this variable that does not include only the exports like in the database used.

6. References

Acedo, F. J., & Jones, M. V. (2007). Speed of internationalization and entrepreneurial cognition: Insights and a comparison between international new ventures, exporters and domestic firms. *Journal of World Business, 42*, 236-252. doi:10.1016/j.jwb.2007.04.012

Acs, Z. J., & Armington, C. (2004). Employment Growth and Entrepreneurial Activity in Cities. *Regional Studies, 38(8)*, 911-927. doi:10.1080/0034340042000280938

Acs, Z., Arenius, P., Hay, M., & Minniti, M. (2005). *Global Entrepreneurship Monitor, 2004 Executive Report.* MA, USA/ London, UK: Babson College/London Business School, Babson Park.

Acs, Z., Desai, S., & Hessels, J. (2008). Entrepreneurship, Economic Development and Institutions. *Small Business Economics, 31*, 219-234. doi:10.1007/s11187-008-9135-9

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes, 50(2)*, 179–211. doi:10.1016/0749-5978(91)90020-T

Alasadi, R., & Abdelrahim, A. (2008). Analysis of small business performance in Syria. *Education, Business and Society, 1(1)*, 50-62. doi:10.1108/17537980810861510

Alvarez, S. A., & Barney, J. B. (2007). Discovery and Creation: Alternative Theories of Entrepreneurial Action. *Strategic Entrepreneurship Journal, 1*, 11-26. doi:10.1002/sej.4

Alvarez, S. A., & Barney, J. B. (2010). Entrepreneurship and Epistemology: The Philosophical Underpinnings of the Study of Entrepreneurial Opportunities. *Academy of Management Annals, 4*, 557- 583. doi:10.5465/19416520.2010.495521

Amit, R., Glosten, L., & Muller, E. (1993). Challenges to theory development in entrepreneurship research. *Journal of Management Studies, 30(5)*, 815-834. doi:10.1111/j.1467-6486.1993.tb00327.x

Arenius, P., & Minniti, M. (2005). Perceptual Variables and Nascent Entrepreneurship. *Small Business Economics, 24*, 233-247. doi:10.2307/40229421

Armuña, C., Ramos, S., Juan, J., Feijóo, C., & Arenal, A. (2020). From stand-up to start-up: exploring entrepreneurship competences and STEM women's intention. *International Entrepreneurship and Management Journal*, 1-24. doi:10.1007/s11365-019-00627-z

Arteaga, M., & Lasio, V. (2009). Empresas dinámicas en Ecuador: factores de éxito y competencias de sus fundadores. *Academia Revista Latinoamericana de Administración, 42(6)*, 1-19. Obtido de https://www.researchgate.net/publication/41805459_Empresas_dinamicas_en_Ecuador_factores_de_exito_y_competencias_de_sus_fundadores

Audretsch, D. B., & Fritsch, M. (2002). Growth Regimes over Time and Space. *Regional Studies, 36(2)*, 113-124. doi:10.1080/00343400220121909

Bade, F.-J., & Nerlinger, E. (2000). Spatial Distribution and Regional Economic Impact of New Technology Based Firms: Empirical Results for West-Germany. *Papers in Regional Science, 79*, 141-172. doi:10.1007/s101100050041

Baron, R. A. (2004). The Cognitive Perspective: A Valuable Tool for Answering Entrepreneurship's Basic ''Why'' Questions. *Journal of Business Venturing, (19)*, 221–239. doi:10.1016/S0883-9026(03)00008-9

Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs "Connect the Dots" to identify new business opportunities. *The Academy of Management Perspectives, 20*, 1. doi:0.5465/amp.2006.19873412

Bates, T. (1995). Self-employment entry across industry groups. *Journal of Business Venturing, 10(2)*, 143-156. doi:10.1016/0883-9026(94)00018-P

Bengtsson, C., Persson, M., & Willenhag, P. (2005). Gender and Overconfidence. *Economics Letters, 86*, 199-203. doi:10.1016/j.econlet.2004.07.012

Bitros, G. C., & Karayiannis, A. D. (2010). Entrepreneurial Morality: Some Indications from Greece. *European Journal of International Management, 4(4)*, 333–361. doi:10.1504/EJIM.2010.033606

Blanchflower, D. G. (2004). Self-employment: More may not be better. *Swedish Economic Policy Review, 11*, 15-74. doi:10.3386/w10286

Blanchflower, D., & Oswald, A. (1998). What makes an entrepreneur? *Journal of Labor Economics,16(1)*, 26-60. doi:10.1086/209881

Bogenhold, D., Heinonen, J., & Akola, E. (2014). Entrepreneurship and Independent Professionals: Social and Economic Logics. *Professionals: Social and Economic Logics, 20*, 295-310. doi:10.1007/s11294-014-9474-z

Bosma, N. (2009). *The Geography of Entrepreneurial Activity and Regional Economic Development: Multilevel Analyses for Dutch and European Regions.* Utrecht University. Obtido de https://www.researchgate.net/publication/27714517_The_geography_of_entrepreneurial_activity_and_regional_economic_development_Multilevel_analyses_for_Dutch_and_European_regions

Bosma, N., & Levie, J. (2010). Global Entrepreneurship Monitor 2009 Executive Report. *Babson College, Universidad del Desarrollo. London Business School, Reykjavík University: Babson Park, MA, Santiago de Chile, Reykjavík, London.* Obtido de https://www.researchgate.net/publication/48322611_Global_Entrepreneurship_Monitor_2009_Executive_Report

Brieger, S. A., Bäro, A., Criaco, G., & Terjesen, S. A. (2020). Entrepreneurs' age, institutions, and social value creation goals: A multi-country study. *Small Business Economics*, 1-29. doi:10.1007/s11187-020-00317-z

Brixy, U., & Grotz, R. (2007). Regional Patterns and Determinants of the Success of New Firms in Western Germany. *Entrepreneurship and Regional Development, 19(4)*, 293-312. doi:10.1080/08985620701275510

Brixy, U., & Hessels, J. (2010). *Human Capital and Start-Up Success of Nascent Entrepreneurs.* Germany: Institute for Employment Research . Obtido de https://pdfs.semanticscholar.org/3aac/1d64219b67138f5068de63a62d780f488402.pdf

Brixy, U., Sternberg, R., & Stüber, H. (2012). The Selectiveness of the Entrepreneurial Process. *Journal of Small Business Management, 50(1)*, 105-131. doi:10.1111/j.1540-627X.2011.00346.x

Brush, C. G. (1992). Research on women business owners: Past trends, a new perspective and future directions. *Entrepreneurship Theory and Practice, 16*, 5-30. doi:10.1177/104225879201600401

Busenitz, L. W., & Barney, J. B. (1997). Differences between Entrepreneurs and Managers in Large Organizations: Biases and Heuristics and Strategic Decision-Making. *Journal of Business Venturing, 12*, 9-30. doi:10.1016/S0883-9026(96)00003-1

Buttner, E. H., & Moore, D. P. (1997). Women's organizational exodus to entrepreneurship: Self-reported motivations and correlates with success. *Journal of Small Business Management, 35(1)*, 34. Obtido de https://www.researchgate.net/publication/279548467_Women's_organizational_exodus_to_entrepreneurship_Self-reported_motivations_and_correlates_with_success

Bygrave, W. D., & Hunt, S. A. (2005). *GEM 2004 Financing Report.* Babson College, MA, U.S., and London Business School, London,.

Bygrave, W. D., & Quill, M. (2006). *GEM 2006 Financing Report.* Babson College, MA, U.S., and London Business School, London,.

Clain, S. H. (2000). Gender differences in full-time self-employment. *Journal of Economics and Business, 52*, 499-513. doi:10.1016/S0148-6195(00)00032-1

Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' Perceived Chances for Success. *Journal of Business Venturing, 3*, 97-108. doi:10.1016/0883-9026(88)90020-1

Cramer, J. S., Hartog, J., Jonker, N., & Van Praag, C. M. (2002). Low risk aversion encourages the choice for entrepreneurship: An empirical test of a truism. *Journal of Economic Behavior and Organization, 48*, 29-36. doi:10.1016/S0167-2681(01)00222-0

Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing, 18(3)*, 301-331. doi:10.1016/S0883-9026(02)00097-6

Delmar, F., & Davidsson, P. (2000). Where do they come from? Prevalence and characteristics of nascent entrepreneurs. *Entrepreneurship & Regional Development: An International Journal, 12(1)*, 1-23. doi:10.1080/089856200283063

Dileo, I., & Pereiro, T. G. (2019). Assessing the impact of individual and context factors on the entrepreneurial process. A cross-country multilevel approach. *International Entrepreneurship and Management Journal, 15*, 1393–1441. doi:10.1007/s11365-018-0528-1

Dimitratos, P., Lioukas, S., & Cartera, S. (2004). The relationship between entrepreneurship and international performance: the importance of domestic environment. *International Business Review, 13*, 19-41. doi:10.1016/j.ibusrev.2003.08.001

Eckhardt, J., & Shane, S. (2003). Opportunities and Entrepreneurship. *Journal of Management, 29*, 333-349. doi:10.1016/S0149-2063(02)00225-8

Ellsberg, D. (1961). Risk, ambiguity, and the Savage axioms. *Quarterly Journal of Economics, 75*, 643- 669. doi:10.2307/1884324

Entrialgo, M., & Iglesias, V. (2020). Entrepreneurial Intentions among University Students: The Moderating Role of Creativity. European Management Review, 17(2), 529-542. doi:10.1111/emre.12386

Etemad, H. (2004a). Internationalization of small and medium-sized enterprises: a grounded theoretical framework and an overview. *Canadian Journal of Administrative Sciences, 21(1)*, 1-21. doi:10.1111/j.1936-4490.2004.tb00319.x

Evald, M. R., Klyver, K., & Christensen, P. R. (2011). The effect of human capital, social capital, and perceptual values on nascent entrepreneurs' export intentions. *Journal of International Entrepreneurship, 9(1)*, 1-19. doi:10.1007/s10843-010-0069-3

Evans, D., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy 97*, 808-827. doi:10.2307/1832192

Evans, D., & Leighton, L. (1989). Some empirical aspects of entrepreneurship. *American Economic Review, 3*, 519-520. doi:10.2307/1806861

Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research, 67 (5)*, 663-666. doi:10.1016/j.jbusres.2013.11.024

Feldman, M. P. (2001). The Entrepreneurial Event Revised: Firm Formation in a Regional Context. *Industrial and Corporate Change, 10(4)*, 861-891. doi:10.1093/icc/10.4.861

Fuller, B., Y. Liu, S. B., Marler, L. E., & Pratt, J. (2018). Examining how the personality, self-efficacy, and anticipatory cognitions of potential entrepreneurs shape their entrepreneurial intentions. *Personality and Individual Differences, 125*, 120-125. doi:10.1016/j.paid.2018.01.005

Gaglio, C. M., & Katz, J. A. (2001). The Psychological Basis Of Opportunity Identification: Entrepreneurial Alertness. *Small Business Economics, 16*, 95-111. doi:10.1023/A:1011132102464

Ganesan, R., Kaur, D., Maheshwari, R., & Satapathy, S. (2003). Demographic correlates of locus of control and perceived ladder of success: a study on women entrepreneurs. *International Journal of Entrepreneurship, 7*, 1-16. Obtido de https://www.abacademies.org/articles/ijevol7no12003.pdf

Gatewood, E., Brush, C. G., Carter, N. M., Greene, P. G., & Hart, M. M. (2009). Diana: A symbol of women entrepreneurs' hunt for knowledge, money, and the rewards of entrepreneurship. *Small Business Economics, 32(2)*, 129-144. doi:10.1007/s11187-008-9152-8

Gollier, C. (2002). What does the classical theory have to say about household portfolios? In: Jappelli. *T. (Ed.), Household Portfolios. MIT Press, Cambridge, MA*, 27–54. doi:10.7551/mitpress/3568.003.0005

Grilo, I., & Thurik, R. (2008). Determinants of entrepreneurial engagement levels in Europe and the US. *Industrial and Corporate Change, 17(6)*, 1113–1145. doi:10.1093/icc/dtn044

Guiso, L., Haliassos, M., & Jappelli, T. (2002). Household portfolios: an international comparison. In: Jappelli. *T. (Ed.), Household Portfolios. MIT Press, Cambridge, MA*, 1-24. Obtido de https://www.researchgate.net/publication/2394284_HOUSEHOLD_PORTFOLIOS_AN_INTERNATIONAL_COMPARISON_Luigi_Guiso_Michael_Haliassos_and_Tullio_Jappelli

Guiso, L., Haliassos, M., & Jappelli, T. (2003). Household stockholding in Europe: where do we stand and where do we go? *Economic Policy, 36 (6)*, 117-164. doi:10.2307/1344655

Harada, N. (2003). Who succeeds as an entrepreneur? An analysis of the post-entry performance of new firms in Japan. *Japan and the World Economy,15(2)*, 211-222. doi:10.1016/S0922-1425(02)00002-6

Harper, D. (1998). Institutional conditions for entrepreneurship. *Advances in Austrian Economics, 5*, 241-275.

Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values.* Beverly Hills: CA, Sage.

Hofstede, G., Noorderhaven, N., Thurik, A. R., Uhlaner, L. M., Wennekers, A. R., & Wildeman, R. E. (2004). *Culture's role in entrepreneurship: Self-employment out of dissatisfaction. In T. E. Brown & J. M.* Ulijn (Eds.), Innovation, entrepreneurship and culture. Cheltenham: Edward Elgar. Obtido de https://www.researchgate.net/publication/313215775_Culture's_role_in_entrepreneurship_self-employment_out_of_dissatisfaction

Hundt, C., & Sternberg, R. (2016). Explaining new firm creation in Europe from a spatial and time perspective: A multilevel analysis based upon data of individuals, regions and countries. *Papers in Regional Science 95(2)*, 223-258. doi:10.1111/pirs.12133

Iyigun, M., & Owen, A. (1998). Risk, entrepreneurship and human capital accumulation. *American Economic Review, 88*, 454 - 457. doi:10.2307/116966

Johnson, J., & Powell, P. (1994). Decision making, risk and gender: Are managers different? *British Journal of Management, 5(2)*, 123-138. doi:10.1111/j.1467-8551.1994.tb00073.x

Jones, M. V., & Coviello, N. E. (2005). Internationalization: conceptualising an entrepreneurial process behaviour in time. *Journal of International Business Studies, 36 (3)*, 284-303. doi:10.1057/palgrave.jibs.8400138

Jones, M. V., Coviello, N., & Tang, Y. K. (2011). International entrepreneurship research (1989– 2009): A domain ontology and thematic analysis. *Journal of Business Venturing, 26*, 632-659. doi:10.1016/j.jbusvent.2011.04.001

Kangasharju, A. (2000). Growth of the smallest: determinants of small firm growth during strong macroeconomic fluctuations. *International Small Business Journal,19 (1)*, 28-43. doi:10.1177/0266242600191002

Kihlstrom, R., & Laffont, J. (1979). A general equilibrium entrepreneurial theory of firm formation based on risk aversion. *Journal of Political Economy, 87*, 719-740. doi: 10.2307/1831005

Kim, G. (2007). The analysis of self-employment levels over the life-cycle. *Quarterly Review of Economics and Finance, 47(3)*, 397. doi:10.1016/j.qref.2006.06.004

Klyver, K., Nielsen, S. L., & Evald, M. R. (2013). Women's self-employment: An act of institutional (dis)integration? A multilevel, cross-country study. *Journal of Business Venturing, 28(4)*, 474–488. doi:10.1016/j.jbusvent.2012.07.002

Koellinger, P., Minniti, M., & Schade, C. (2007). I Think I Can, I Think I Can: Overconfidence and entrepreneurial behavior. *Journal of Economic Psychology, 28 (4)*, 502-527. doi:10.1016/j.joep.2006.11.002

Koellinger, P., Minniti, M., & Schade, C. (2013). Gender Differences in Entrepreneurial Propensity. *Oxford Bulletin of Economic Statistics, 75(2)*, 213-234. doi:10.1111/j.1468-0084.2011.00689.x

Leazar, E. (2002). Entrepreneurship. *NBER Working Paper No. 9109*. Obtido de https://www.nber.org/papers/w9109

Levesque, M., & Minniti, M. (2006). The Effect of Aging on Entrepreneurial Behavior. *Journal of Business Venturing, 21(2)*, 177-194. doi:10.1016/j.jbusvent.2005.04.003

Levie, J., Autio, E., Acs, Z., & Hart, M. (2014). Global Entrepreneurship and Institutions: An Introduction. *Small Business Economics, 42*, 437-444. doi:10.1007/s11187-013-9516-6

Levin, I., Snyder, M., & Chapman, D. (1988). The interaction of experiential and situational factors and gender in a simulated risky decision making task. *Journal of Psychology, 122(2)*, 173-181. doi:10.1080/00223980.1988.9712703

Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal,11*, 907-933. doi:10.1007/s11365-015-0356-5

Liñán, F., & Fernández, J. R. (2013). Necessity and opportunity entrepreneurship: The mediating effect of culture. *Revista de Economía Mundial, 33*, 21-47. Obtido de https://www.researchgate.net/publication/235937863_Necessity_and_opportunity_entrepreneurship_The_mediating_effect_of_culture

Manolova, T. S., Brush, C. G., Edelman, L. F., & Greene, P. G. (2002). Internationalization of Small Firms Personal Factors Revisited. *International Small Business Journal, 20*, 9-31. doi:10.1177/0266242602201003

Marlow, S., & Patton, D. (2005). All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship, Theory and Practice, 29(6)*, 717-735. doi:10.1111/j.1540-6520.2005.00105.x

Marques, H. (2017). The routineness of tasks, gender and culture in entrepreneurship. *Socio-Economic Review, 15(4)*, 1-32. doi:10.1093/ser/mwx017

Maula, M., Autio, E., & Arenius, P. (2005). What drives micro-angel investments? A large sample study of the factors explaining micro-angel investments. *Small Business Economics, 25(5)*, 459-475. doi:10.1007/s11187-004-2278-4

McDougall, P. P. (1989). International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *Journal of Business Venturing, 4*, 387-400. doi:10.1016/0883-9026(89)90009-8

McDougall, P. P., Oviatt, B. M., & Shrader, R. C. (2003). A comparison of international and domestic new ventures. *Journal of International Entrepreneurship, 1*, 59-82. doi:10.1023/A:1023246622972

Mickiewicz, T., Nyakudya, F. W., Theodorakopoulos, N., & Hart, M. (2017). Resource endowment and opportunity cost effects along the stages of entrepreneurship. *Small Business Economics, 48 (4)*, 953-976. doi:10.1007/s11187-016-9806-x

Minniti, M. (2009). Gender Issues in Entrepreneurship. *Foundations and Trends in Entrepreneurship, 5(7–8)*, 497-621. doi:10.1561/0300000021

Minniti, M. (2010). Female Entrepreneurship and Economic Activity. *The European Journal of Development Research, 22(3)*, 294–312. doi:10.1057/ejdr.2010.18

Murphy, K., Shleifer, A., & Vishny, R. (1991). The allocation of talent: implications for growth. *Quarterly Journal of Economics, 106*, 503-530. doi:10.2307/2937945

Parker, S. C. (2009). *The Economics of Entrepreneurship.* Cambridge: Cambridge University Press.

Peiris, I. K., Akoorie, M. E., & Sinha, P. (2012). International entrepreneurship: A critical analysis of studies in the past two decades and future directions for research. *Journal of International Entrepreneurship, 10*, 279–324. doi:10.1007/s10843-012-0096-3

Pines, A. M., Lerner, M., & Schwartz, D. (2010). Gender differences in entrepreneurship: Equality, diversity and inclusion in times of global crisis. *Gender differences in entrepreneurship: An International Journal, 29(2)*, 186-198. doi:10.1108/02610151011024493

Ramoglou, S., & Tsang, E. (2016). A Realist Perspective of Entrepreneurship: Opportunities as Propensities. *Academy of Management Review, 41*, 410-434. doi:10.5465/amr.2014.0281

Ramos-Rodríguez, A. R., Medina-Garrido, J. A., & Ruiz-Navarro, J. (2012). Determinants of Hotels and Restaurants entrepreneurship: A study using GEM data. *International Journal of Hospitality Management, 31 (2)*, 579-587. doi:10.1016/j.ijhm.2011.08.003

Reuber, A. R., Knight, G. A., Liesch, P. W., & Zhou, L. (2018). International entrepreneurship: The pursuit of entrepreneurial opportunities across national borders. *Journal of International Business Studies, 49*, 395–406. doi:10.1057/s41267-018-0149-5

Reynolds, P. D. (2007). New Firm Creation in the United States A PSED I Overview. *Foundations and Trends in Entrepreneurship, 3(1)*, 1-150. doi:10.1561/0300000010

Reynolds, P. D., & White, S. B. (1997). *Entrepreneurial processes and outcomes: The influence of ethnicity. In P.D.* Reynolds & S. B. White (Eds.), The entrepreneurial process. Westport: Quorum Books.

Reynolds, P. D., Miller, B., & Maki, W. R. (1995). Explaining regional variation in business births and deaths: U.S. 1976–88. *Small Business Economics, 7*, 389–407. doi:10.1007/BF01302739

Reynolds, P., Bygrave, B., & Hay, M. (2003). *Global Entrepreneurship Monitor Report.* Kansas City, MO.: E.M. Kauffmann Foundation.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, 609. doi:10.1037/h0092976

Ruiu, G., & Breschi, M. (2019). The Effect of Aging on the Innovative Behavior of Entrepreneurs. *Journal of the Knowledge Economy, 10*, 1784–1807. doi:10.1007/s13132-019-00612-5

Schiller, B. R., & Crewson, P. E. (1997). Entrepreneurial origins: A longitudinal inquiry'. *Economic Inquiry, 35(3)*, 523- 531. doi:10.1111/j.1465-7295.1997.tb02029.x

Shane, S. (2000). Prior Knowledge and the Discovery of Entrepreneurial Opportunities. *Organization Science, 11*, 448-469. doi:10.1287/orsc.11.4.448.14602

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *The Academy of Management Review, 25(1)*, 217- 226. doi:10.2307/259271

Shane, S., Lockea, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review, 13*, 257-279. doi:10.1016/S1053-4822(03)00017-2

Smallbone, D., & Welter, F. (2001). 'The distinctiveness of entrepreneurship in transition economies. *Small Business Economics, 16(4)*, 249- 262. doi:10.1023/A:1011159216578

Storr, V. (2012). *Understanding the Culture of Markets.* New York: Routledge.

Tabares, A., Chandra, Y., Alvarez, C., & Escobar-Sierra, M. (2020). Opportunity-related behaviors in international entrepreneurship research: a multilevel analysis of antecedents, processes, and outcomes. *International Entrepreneurship and Management Journal*, 1-48. doi:10.1007/s11365-020-00636-3

Taylor, M. (1996). Earnings, independence or unemployment; why become self-employed? *Oxford Bulletin of Economics and Statistics, 58(2)*, 253-265. doi:10.1111/j.1468-0084.1996.mp58002003.x

Terjesen, S., Hessels, J., & Li, D. (2016). Comparative International Entrepreneurship: A Review and Research Agenda. *Journal of Management, 42 (1)*, 299- 344. doi:10.1177/0149206313486259

Thurik, R., Uhlaner, L., & Hutjes, J. (2002). Post-Materialism as a Cultural Factor Influencing Entrepreneurial Activity Across Nations. Em U. Cantner, M. Goethner, & A. Meder, *Prior Knowledge and Entrepreneurial Innovative Success.* Obtido de https://www.researchgate.net/publication/5012556_Post-Materialism_as_a_Cultural_Factor_Influencing_Entrepreneurial_Activity_Across_Nations

Tversky, A., & Kahneman, D. (1992). . Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty, 5*, 297 - 323. doi:10.1007/BF00122574

van der Zwan, P., & & Thurik, T. (2017). Entrepreneurship as a process: Empirical evidence for entrepreneurial engagement levels. *The Wiley Handbook of Entrepreneurship, First Edition.*, 25-35. doi:10.1002/9781118970812.ch2

Veciana, J. (2007). Entrepreneurship as a scientific research programme. *Concepts, Theory and Perspective. Springer*, 23-71. doi:10.1007/978-3-540-48543-8_2

Verheul, I., & Thurik, R. (2001). Start-Up Capital: "Does Gender Matter?". *Small Business Economics, 16(4)*, 329- 346. doi:10.1023/A:1011178629240

Viswanathan, M., Echambadi, R., Venugopal, S., & Sridharan, S. (2014). Subsistence Entrepreneurship, Value Creation, and Community Exchange Systems: A Social Capital Explanation. *Journal of Macromarketing, 34(2)*, 213-226. doi:10.1177/0276146714521635

Wagner, J. (2007). What a Difference a Y Makes—Female and Male Nascent Entrepreneurs in Germany. *Small Business Economics, 28(1)*, 1-21. doi:10.1007/s11187-005-0259-x

Wit, G. d., & Winden, F. A. (1989). An empirical analysis of self-employment in the Netherlands. *Small Business Economics, 1(4)*, 263–272. doi:10.1016/0165-1765(90)90056-7

Wu, B., & Knott, A. M. (2006). Entrepreneurial risk and market entry. *Management Science, 52(9)*, 1315-1330. doi:10.1287/mnsc.1050.0543

Wyrwich, M., Stuetzer, M., & Sternberg, R. (2016). Entrepreneurial role models, fear of failure, and institutional approval of entrepreneurship: a tale of two regions. *Small Business Economics, 46(3)*, 467–492. doi:10.1007/s11187-015-9695-4

Zahra, S. A., Korri, J. S., & Yu, J. (2005). Cognition and international entrepreneurship: Implications for research on international opportunity recognition and exploitation. *International Business Review, 14*, 129-146. doi:10.1016/j.ibusrev.2004.04.005

Zwan, P. v., Verheul, I., Thurik, R., & Grilo, I. (2013). Entrepreneurial Progress: Climbing the Entrepreneurial Ladder in Europe and the United States. *Regional Studies, Taylor & Francis Journals, 47(5)*, 803-825. doi:10.1080/00343404.2011.598504

Attach 1 – Table 5 - Correlation Table and Multicollinearity Test

Correlation Table

		Mean	N	Nascent
1	Nascent Entrepreneurship	0,09	181281	1
2	Age	41,08	179641	-0,081**
3	Gender	1,51	181276	-0,058**
4	Work Status	1,48	178002	-0,136**
5	Education	2,00	158758	-0,007**
6	Household income	1,95	151427	0,074**
7	Opportunity perception	0,41	179048	0,185**
8	Confidence in one's skills	0,50	153478	0,242**
9	Fear of failure	0,41	174283	-0,086**
10	Knowing other entrepreneur	0,38	175005	0,206**

Multicollinearity Test

	Tolerance	VIF
Nascent	0,958	1,044
Age	0,967	1,035
Gender	0,909	1,100
Work Status	0,915	1,093
Education	0,882	1,134
Household income	0,916	1,092
Opportunity perception	0,875	1,142
Confidence in one's skills	0,971	1,030
Fear of failure	0,886	1,129
Knowing other entrepreneur	0,958	1,044

Attach 2 – Table 6 - Nine Logistic Regression Models

Demographic and Economic variables

Model 1 (Dependent Variable = Nascent Entrepreneurship)				
		Coefficient (std. Error)	Wald	Odds Ratio
Age		-0,022*** (0,001)	916,922	0,978
Gender		-0,253 *** (0,018)	187,507	0,776
Work Status	Working		1609,932***	
	Not Working	1,758*** (0,053)	1088,250	5,805
	Retired / Student	1,029*** (0,059)	304,954	2,797
Education	None		592,681***	
	Some secondary	0,529*** (0,045)	140,377	1,698
	Secondary degree	-0,035 (0,045)	0,626	0,965
	Post-secondary	-0,141*** (0,040)	12,133	0,869
	Grad Exp.	-0,091* (0,040)	5,139	0,913
Income	Lowest		433,786***	
	Middle	-0,477*** (0,023)	418,692	0,621
	Upper	-0,274*** (0,022)	161,806	0,760
Model Diagnostics				
Constant		-2,256*** (0,076)	875,302	0,105
Overall % correct predictions		90,2%		
ADJUSTED R^2		0,072		

	Model 2 (Dependent Variable = Nascent Entrepreneurship)				
			Coefficient (std. Error)	Wald	Odds Ratio
Demographic and Economic variables	Age		-0,018*** (0,001)	475,525	0,982
	Gender		-0,080*** (0,021)	14,613	0,924
	Work Status	Working		797,019***	
		Not Working	1,398*** (0,057)	596,848	4,048
		Retired / Student	0,889*** (0,063)	196,293	2,432
	Education	None		215,842***	
		Some secondary	0,375*** (0,050)	55,283	1,455
		Secondary degree	0,040 (0,050)	0,636	1,041
		Post-secondary	-0,072 (0,046)	2,452	0,931
		Grad Exp.	-0,059 (0,046)	1,695	0,942
	Income	Lowest		84,763***	
		Middle	-0,227*** (0,026)	76,911	0,797
		Upper	-0,157*** (0,024)	41,712	0,855
Perceptual variables	Opportunity perception		0,729*** (0,021)	1163,017	2,073
	Confidence in one's skills		1,543*** (0,029)	2927,334	4,681
	Fear of failure		-0,371*** (0,022)	277,055	0,690
	Knowing other entrepreneur		0,788*** (0,022)	1328,338	2,200
	Model Diagnostics				
	Constant		-4,201*** (0,089)	2231,629	0,015
	Overall % correct predictions		89,3%		
	ADJUSTED R^2		0,229		

	Model 3 (Dependent Variable = Nascent Entrepreneurship)		
	Coefficient (std. Error)	Wald	Odds Ratio
Perceptual variables: Opportunity perception	0,802*** (0,020)	1673,594	2,230
Perceptual variables: Confidence in one's skills	1,646*** (0,026)	3891,369	5,187
Perceptual variables: Fear of failure	-0,369*** (0,021)	2246,423	2,561
Perceptual variables: Knowing other entrepreneur	0,940*** (0,020)	322,974	0,691
Model Diagnostics			
Constant	-4,145*** (0,029)	21151,899	0,016
Overall % correct predictions	89,9%		
ADJUSTED R^2	0,205		

Model 4 (Dependent Variable = Nascent Entrepreneurship)				
Gender Interaction Terms		Coefficient (std. Error)	Wald	Odds Ratio
Age*Gender		0,002 (0,002)	1,023	1,002
Work Status*Gender	Working		22,301***	
	Not Working	-0,053 (0,115)	0,210	0,949
	Retired / Student	-0,356** (0,128)	7,737	0,700
Education*Gender	None		35,309***	
	Some secondary	0,157 (0,104)	2,299	1,170
	Secondary degree	0,235* (0,103)	5,169	1,264
	Post-secondary	0,240* (0,094)	6,488	1,272
	Grad Exp.	-0,038 (0,094)	0,160	0,963
Income*Gender	Lowest		11,364**	
	Middle	0,175*** (0,053)	11,100	1,192
	Upper	0,054 (0,050)	1,188	1,056
Opportunity perception* Gender		0,071 (0,043)	2,656	1,073
Confidence in one's skills * Gender		0,123* (0,057)	4,627	1,131
Fear of failure* Gender		0,001 (0,045)	0,000	1,001
Knowing other entrepreneur* Gender		0,000 (0,044)	0,000	1,000
Model Diagnostics				
Constant		-3,745*** (0,256)	214,599	0,024
Overall % correct predictions		89,3%		
ADJUSTED R^2		0,231		

Demographic and Economic variables

Perceptual variables

Model 5 (Dependent Variable = Nascent Entrepreneurship)				
Country Dummies		Coefficient (std. Error)	Wald	Odds Ratio
Age		-0,012*** (0,001)	188,401	0,988
Gender		-0,126*** (0,022)	34,372	0,881
Work Status	Working		878,687***	
	Not Working	1,464*** (0,058)	627,219	4,325
	Retired / Student	0,855*** (0,065)	173,940	2,352
Education	None		16,907**	
	Some secondary	-0,208*** (0,058)	12,861	0,813
	Secondary degree	-0,160** (0,055)	8,539	0,852
	Post-secondary	-0,159*** (0,049)	10,617	0,853
	Grad Exp.	-0,099* (0,048)	4,283	0,905
Income	Lowest		67,335***	
	Middle	-0,226*** (0,028)	64,238	0,798
	Upper	-0,135*** (0,026)	27,265	0,873
Opportunity perception		0,660*** (0,022)	877,996	1,936
Confidence in one's skills		1,412*** (0,029)	2297,002	4,104
Fear of failure		-0,286*** (0,023)	150,623	0,751
Knowing other entrepreneur		0,792*** (0,023)	1200,509	2,208
Model Diagnostics				
Constant		-2,043*** (0,119)	294,075	0,130
Overall % correct predictions		89,5%		
ADJUSTED R^2		0,290		

Demographic and Economic variables

Perceptual variables

Demographic and Economic variables

Model 6 (Dependent Variable = International Entrepreneurship)				
		Coefficient (std. Error)	Wald	Odds Ratio
Age		-0,015*** (0,002)	68,699	0,985
Gender		-0,524*** (0,048)	119,689	0,592
Work Status	Working		252,260***	
	Not Working	1,543*** (0,129)	143,031	4,680
	Retired / Student	0,539*** (0,153)	12,360	1,713
Education	None		92,414***	
	Some secondary	-0,595*** (0,104)	32,542	0,551
	Secondary degree	-0,916*** (0,102)	81,237	0,400
	Post-secondary	-0,637*** (0,082)	60,181	0,529
	Grad Exp.	-0,459*** (0,080)	32,711	0,632
Income	Lowest		38,382***	
	Middle	-0,270*** (0,058)	21,842	0,764
	Upper	-0,307*** (0,054)	31,824	0,736
Model Diagnostics				
Constant		-3,493*** (0,180)	378,239	0,030
Overall % correct predictions		98,6%		
ADJUSTED R^2		0,045		

Model 7 (Dependent Variable = International Entrepreneurship)				
		Coefficient (std. Error)	Wald	Odds Ratio
Age		-0,011*** (0,002)	37,913	0,989
Gender		-0,365*** (0,048)	57,048	0,694
Work Status	Working		163,169***	
	Not Working	1,230*** (0,130)	90,015	3,423
	Retired / Student	0,407** (0,154)	6,998	1,502
Education	None		85,405***	
	Some secondary	-0,745*** (0,105)	50,694	0,475
	Secondary degree	-0,850*** (0,102)	69,322	0,427
	Post-secondary	-0,572*** (0,083)	47,801	0,565
	Grad Exp.	-0,434*** (0,081)	28,835	0,648
Income	Lowest		11,022**	
	Middle	-0,049 (0,058)	0,707	0,952
	Upper	-0,179** (0,055)	10,688	0,836
Opportunity perception		0,471*** (0,047)	99,129	1,601
Confidence in one's skills		1,235*** (0,063)	383,067	3,439
Fear of failure		-0,383*** (0,053)	54,928	0,682
Knowing other entrepreneur		0,683*** (0,053	186,094	1,979
Model Diagnostics				
Constant		-5,042*** (0,192)	691,120	0,006
Overall % correct predictions		98,6%		
ADJUSTED R^2		0,106		

Demographic and Economic variables

Perceptual variables

Perceptual variables

Model 8 (Dependent Variable = International Entrepreneurship)			
	Coefficient (std. Error)	Wald	Odds Ratio
Opportunity perception	0,497*** (0,043)	131,996	1,644
Confidence in one's skills	1,427*** (0,059)	590,6	4,167
Fear of failure	-0,336*** (0,047)	50,802	0,714
Knowing other entrepreneur	0,879*** (0,046)	365,185	2,41
Model Diagnostics			
Constant	-5,875*** (0,061)	9305,437	0,003
Overall % correct predictions	98,7%		
ADJUSTED R^2	0,088		

Model 9 (Dependent Variable = International Entrepreneurship)				
Country Dummies		Coefficient (std. Error)	Wald	Odds Ratio
Age		-0,013*** (0,002)	42,732	0,987
Gender		-0,320*** (0,053)	36,994	0,726
Work Status	Working		124,476***	
	Not Working	1,211*** (0,139)	76,470	3,358
	Retired / Student	0,473** (0,164)	8,337	1,605
Education	None		18,459***	
	Some secondary	-0,512*** (0,128)	15,998	0,599
	Secondary degree	-0,384*** (0,116)	11,004	0,681
	Post-secondary	-0,306*** (0,093)	10,793	0,737
	Grad Exp.	-0,293*** (0,090)	10,584	0,746
Income	Lowest		7,880*	
	Middle	-0,129** (0,067)	3,708	0,879
	Upper	-0,163 (0,061)	7,063	0,850
Opportunity perception		0,434*** (0,054)	65,363	1,544
Confidence in one's skills		1,247*** (0,072)	296,343	3,480
Fear of failure		-0,367*** (0,057)	41,175	0,693
Knowing other entrepreneur		0,821*** (0,056)	218,116	2,273
Model Diagnostics				
Constant		-6,641*** (0,380)	305,667	0,001
Overall % correct predictions		98,5%		
ADJUSTED R^2		0,176		

Demographic and Economic variables

Perceptual variables

Conclusion

In order to answer to the specific objectives as well to the questions of research, two studies were carried out.

The first article " Government Support for new and growing firms: Gem Research " answered the following specific research objective: (1) To explore the main governmental stimulus for entrepreneurship and to identify the determinant factors to define the priority given by the government on the support for new and growing firms.

The literature shows that the principal incentives provided by the government to the creation of business are through: Government Policies; R&D; Financing and Taxes.

In this study two statistical analyzes were used in order to investigate which of the factors mentioned in the literature are more important to the experts to define the priority given by the government in helping the new and growing firms. Our results based on the experts' perceptions suggest that even though all the four factors are important to incentive the creation of firms, the greater the public policies implemented by the government, the higher the priority given by them to this phenomenon.

Responding to the first central question of the study – (1) What governmental initiatives help new and growing firms and which of them is more important for the experts to determine the priority given by the government in helping the entrepreneurship? – The four factors determined are: Government Policies; Financing, R&D and Taxes. Our results are in line with the literature presented, with all factors influencing the experts' perception about the governmental priority when it comes to support new and growing firms and the most important factor is Government Policies based on the experts' perceptions.

The second article "Perceptual Variables, Macroeconomic Environment and International Nascent Entrepreneurship" responds to objective number two: (2) To study the main individual characteristics conducting to the decision to become both, nascent entrepreneur and international nascent entrepreneur.

The literature shows that are three types of variables that influence the possibility to become entrepreneur and international entrepreneur and they are: Demographic and Economic variables, Perceptual variables and Country-effect variables.

In terms of Demographic and Economic variables, there are establish and discussed age, gender, education, income and work status. The four perceptual variables considered are opportunities perception, knowing other entrepreneurs, fear of failure and confidence in one's skills. The country-effects side examines the impact of the different cultures and environment of the countries on the decision to start a new business.

Trough nine logistic regression models it was found that all three types of variables are statistically important to explain the decision to both become entrepreneur and international entrepreneur.

Our results suggest that older individuals are less likely to become entrepreneurs, men are more entrepreneurs, the higher the education and income, the less likely to start a new business and being unemployed is favorable to the decision to start a firm and create their own job. In terms of perceptions, the higher the opportunity perception, knowing other entrepreneurs and confidence in one's skills, the higher the propensity to become (international) entrepreneur and the higher the fear of failure, the less likely to become entrepreneur. The country-effects variables improved the model, increasing the explanation of the variance of the dependent variables.

Regarding to the second question – (2) What are the variables that influence the decision to become international nascent entrepreneur and which of them are significant and more important? – Our results from both theoretical and empirical study suggest that three types of variables are important when analyzing the decision to become entrepreneur: Demographic and Economic variables; Perceptual variables and Country-effects variables. Based on the outcomes of nine logistic regression models it is concluded that Perceptual variables and Country-effects are very important in models that study the entrepreneurial behavior since both variables improve the explanation of the variance of the dependent variables (Nascent Entrepreneurship/ International Nascent Entrepreneurship).

Our results decline three hypotheses regarding the education, income and work status. This happened probably because were included developing countries in our sample, where there is a higher level of poverty and entrepreneurship happens more due to necessity rather than opportunity (subsistence entrepreneurship). In this case, people with less education, unemployed and with lower income feel more forced to create their own job.

Limitations and future research

Some limitations were identified during the process of research. In the first empirical study, the main limitation is that the data was obtained through the perception of the experts, which makes it complicated to guarantee the viability of the obtained results, that can be biased, since distortions in perceptions are normal.

In the second article, one of the main limitations is the same one as the first article, where is not possible to assure the viability of the obtained results, since the database was obtained through the perception of the individuals, and they can be biased. Another limitation is the fact that the perceptual variables were measured only with 2 options, being "yes" or "no" and a "yes" from an individual can be different to the "yes" of the other individual since every person is different.

The third limitation of this study is that the dependent variable that measures international entrepreneurship only considers the exports level, while internationalization involves other forms of international entry.

The final limitation regards the country-level variable that was measured by the mean of the countries, being necessary other variables to analyze in depth the environment impact on entrepreneurial decisions.

For future research, it is proposed to expand statistical analysis of both quantitative and qualitative nature, to evaluate and consider other variables in order to continue the research about the favorable environment to create business in the country, the current theme which importance has been widely recognized, combining relevant variables from other databases with those presented by GEM (NES), for example the GDP, level of education and unemployment rate.

Regarding the research of perceptions in the entrepreneurial behavior, is suggested for future studies to use the Fuzzy logic, in which the truth values of variables may be any real number between 0 and 1, both inclusive. For that, is recommended the creation of a questionnaire where the perceptual variables allow a finer level of reply.

Differences in the national environment such as technology, level of economic development, institutions and culture cause differences in the perceptual variables (opportunities, resources, skills and preferences regarding entrepreneurship), so a future research including these variables is relevant.

Another suggestion concerns the international entrepreneurship, since the GEM project only considers the exports when evaluating the international entrepreneurship, a study including the other forms of international entry to better measure the international entrepreneurship is necessary.

Considering the current pandemic situation, regarding the Covid-19, it would be of great importance for a future study to evaluate the perceptions of possible future entrepreneurs, regarding the concepts approached in this work. The entrepreneurial finance market is being affected by more uncertainty, which probably will have an important and lasting effect in entrepreneurial and innovative activity in the coming years ((Brown et al. (2020); (Howell et al. (2020)).

References

Brown, R., Rocha, A., & Cowling, M. (2020). Financing entrepreneurship in times of crisis: Exploring the impact of COVID-19 on the market for entrepreneurial finance in the United Kingdom. *Researching Entrepreneurship 2020, 38(5)*, 380-390. doi:10.1177/0266242620937464

Entrialgo, M., & Iglesias, V. (2020). Entrepreneurial Intentions among University Students: The Moderating Role of Creativity. *European Management Review, 17(2)*, 529-542. doi:10.1111/emre.12386

Howell, S. T., Lerner, J., Nanda, R., & Townsend, R. R. (2020). Financial distancing: How venture capital follows the economy. *Harvard Business School Working paper no. 20-115, 12*. Obtido de https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3594239

Jin, C.-H., & Lee, J.-Y. (2020). The impact of entrepreneurship on managerial innovation capacity: The moderating effects of policy finance and management support. *South African Journal of Business Management, 51(1)*, 1-13. doi:10.4102/sajbm.v51i1.246

Nurmalia, & Muzayanah, I. F. (2020). The Roles of Entrepreneurship on Regional Economic Growth in Indonesia. *Journal of the Knowledge Economy, 11*, 28-41. doi:10.1007/s13132-018-0557-6

Prasetyo, E., & Kistanti, N. R. (2020). Role of Social Entrepreneurship in Supporting Business Opportunities and Entrepreneurship Competitiveness. *Open Journal of Business and Management, 8(4)*, 1412-1425. doi:10.4236/ojbm.2020.84090

Wiklund, J. N.-D. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing, 34 (4)*, 579-588. doi:10.1016/j.jbusvent.2019.01.002